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## **ENGINEERING REPORT**

### **FAA CONTRACT NO. DTFA03-02-C-00044 PHASE 1, CLIN 0001d (TASK 4) - FIELD INSPECTION REPORT**

Distribution

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ATTACHMENTS:

- APPENDIX A      PHOTOGRAPHS OF INITIAL GENERAL VISUAL INSPECTION, LOCATION OF SECTIONS, AND CONDITION OF THE REMOVED SECTIONS
- APPENDIX B      SCREEN REPRESENTATIONS OF LFEC AND MFEC INDICATIONS NOTED DURING INSPECTIONS OF LONGITUDINAL LAP JOINTS
- APPENDIX C      PHOTOGRAPHS OF INDICATION LOCATIONS NOTED DURING INTERNAL DVI AND INTERNAL MFEC INSPECTIONS
- APPENDIX D      SCREEN REPRESENTATIONS OF THE ULTRASONIC INSPECTION FOR TEAR STRAP DEBONDS
- APPENDIX E      PHOTOGRAPHS OF STRINGER CLIPS WITH INDICATIONS NOTED DURING DVI
- APPENDIX F      INDICATIONS DISCOVERED DURING DVI OF OVERWING EMERGENCY EXIT DOORS AND SURROUNDING STRUCTURE

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**LIST OF ACRONYMS**

AD Airworthiness Directive

ASNT American Society for Non-destructive Testing

BL Butt Line (Aircraft Coordinate System)

BS Body Station (Fuselage Aircraft Coordinate System)

CIC Corrosion Inhibiting Compound

DVI Detailed Visual Inspection

EO Engineering Order (Delta internal document for modification instructions)

ER/A Engineering Repair Authorization

FS Fuselage Station (Aircraft Coordinate System)

FWD Forward

GVI General Visual Inspection

HFEC High Frequency Eddy Current

JIC Job Instruction Card

LFEC Low Frequency Eddy Current

MFEC Medium Frequency Eddy Current

MLG Main Landing Gear

MPD Maintenance Planning Document

NDT Non-destructive Testing

SB Service Bulletin

SSID Supplementary Structural Inspection Document

TOPP Technical Operations Policies and Procedures

WL Water Line (Aircraft Coordinate System)

WS Wing Station (Aircraft Coordinate System)

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## EXECUTIVE SUMMARY

Visual and NDT field inspections were conducted on aircraft N474DA in Victorville, California, between November 5<sup>th</sup> and November 10<sup>th</sup>, 2002 in support of FAA Contract DTFA03-02-C-00044.

Inspections were conducted by qualified personnel using procedures based on the OEM's recommended standard practice and directed inspection program. In some instances, NDT procedures were modified to allow data acquisition of signal response data for later analysis.

An initial walk-around inspection was conducted to catalog and document the condition of the aircraft, and locations of identified sections. After removal, the final condition of the removed sections was noted.

Visual and NDT inspections were performed on items identified in Phase 1, CLIN 0001c (Task 3 - Target Area Report). Indications were noted on the lap joints, stringer clips, tear straps, and overwing emergency exits in approximate locations noted in Figure 1.

Inspections of the lap joint at stringer 4L revealed 13 indications on nine fasteners between BS 400 and BS 440 with MFEC, 4 of which were also noted during DVI. No LFEC indications were noted in this area. Inspections on the lap joint at stringer 4R resulted in 159 MFEC indications, 30 visual indications, and 20 LFEC indications from BS 420 to BS 720E. Stringer 26R also produced two indications which were not rejectable. All other lap joint inspections did not reveal any indications of note. However, two areas of lap joint did reveal a slight gap between the layers and signs of corrosion.

Eleven indications of debond were noted during ultrasonic inspection of the tear straps for debonding. Eight stringer clips were noted to have nine indications via visual inspection. Seven of these clips were found on stringers 2R to 4R, in the areas which produced many lap joint indications. The overwing emergency exit hatches and surrounding structure were inspected visually with eight indications noted. Six of these indications were on the right side, with most on the aft side of the aft door. Inspections of other areas revealed no indications.

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## CHAPTER 1. INTRODUCTION

This report supports Task 4 of FAA Contract No. DTFA03-02-C-00044. Various NDT and visual inspections were accomplished on aircraft N474DA prior to disassembly. The inspections were conducted between November 5<sup>th</sup> and November 10<sup>th</sup>, 2002 in Victorville, California. This report provides details and results of the inspections, including procedures used, locations of defect indications noted, and condition of the structure prior to disassembly.

This report and the accomplishment of procedures associated with the report, fulfill all obligations of Task 4 of FAA Contract No. DTFA03-02-C-00044. This report constitutes the deliverable Phase 1, CLIN 0001d.

## CHAPTER 2. RESULTS AND CONCLUSIONS

This report details procedures and results of field inspections conducted on aircraft N474DA in Victorville, California, between November 5<sup>th</sup> and November 10<sup>th</sup>, 2002. Appendix A shows photographs of the initial walk-around inspections, locations of marked sections, and final condition of the removed sections. Indications were noted on the lap joints, stringer clips, tear straps, and overwing emergency exits in approximate locations noted in Figure 1.

Inspections of the lap joint at stringer 4L revealed 13 indications on nine fasteners between BS 400 and BS 440 with MFEC, 4 of which were also noted during DVI. No LFEC indications were noted in this area. Inspections on the lap joint at stringer 4R resulted in 159 MFEC indications, 30 visual indications, and 20 LFEC indications from BS 420 to BS 720E. Stringer 26R also produced two indications which were not rejectable. All other lap joint inspections did not reveal any indications of note. Two areas of lap joint did reveal a slight gap between the layers and signs of corrosion.

Eleven indications of debond were noted during ultrasonic inspection of the tear straps for debonding. However, some of these indications may only be the start of debonds, as a slight gap between the tab

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and skin below the tear strap end existed. Since the use of a feeler gauge along the edges is another method of detecting debonds, these indications were noted and recorded.

Eight stringer clips were noted to have nine indications via visual inspection. Seven of these clips were found on stringers 2R to 4R, in the areas which produced many lap joint indications.

The overwing emergency exit hatches and surrounding structure were inspected visually with eight indications noted. Six of these indications were on the right side, with most on the aft side of the aft door.

No indications were noted during examination of the circumferential butt joints, cockpit cabin window post, BS 1183 bulkhead, forward shear-tied frames, L1 door surround, keel beam, and MLG wheel well pressure deck. Inspections of the wings did not reveal any indications. Included in these were examination of the rear spar upper chord at WS 293, outer wing upper skin stringer-to-rib attachments, and fuselage-to-wing attachments.

## CHAPTER 3. VISUAL & NDT INSPECTION PROCEDURES & RESULTS

### 3.1 General

Per Task 4 of FAA Contract DTFA03-02-C-00044, the field inspections shall be based on the OEM's recommended standard practice and directed inspection requirements, such as service bulletins or airworthiness directives. All procedures were taken directly from internally generated documents such as Delta Job Instruction Cards (JICs) or Delta Engineering Orders (EOs), which were taken from Airworthiness Directives, Service Bulletins, the B727 Supplemental Structural Inspection Document (D6-48040-1), the B727 NDT Manual (D6 48875), or the B727 Maintenance Planning Document (D6-8766). Some NDT procedures were modified to allow data acquisition of signal response data to be analyzed later.

General Visual Inspection (GVI) and Detailed Visual Inspection (DVI) guidelines are governed by Delta's Technical Operations Policies and Procedures (TOPP) 40-10-10 as follows:

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General Visual Inspection (GVI): A visual examination of an interior or exterior area, installation or assembly to detect obvious damage, failure, or irregularity. This level of inspection is made under normally available lighting conditions such as daylight, hangar lighting, flashlight, or drop-light, and may require removal or opening of access panels or doors, and is typically accomplished within touching distance of the part or area. Stands, ladders, or platforms may be required to gain proximity to the area being checked. Removal of foreign material such as dirt, grease, etc., may be required to expose suspected areas. Inspection of structures may be performed without removal of Corrosion Inhibiting Compounds (CICs) and should be performed with sufficient detail to detect all defects 3" long or greater. If localized heavy buildup of CIC is encountered which prohibits complying, have CICs locally removed prior to inspection and replaced upon completion.

Detailed Visual Inspection (DVI): An intensified, critical visual inspection of an assembly, area or installation for any evidence of mechanical or structural irregularity including exposed structural components, appliances, cables, controlling devices, ducting, plumbing, wiring, etc., for condition and security or signs of leakage. Close proximity is required and stands are used. Plates, panels, fairing, etc., will be opened as specified on the applicable work document and/or, as necessary, to further investigate suspected areas based on evidence of possible failure. Inspection aids such as mirrors, magnifying glasses, dye check, etc., are employed as specified on applicable work documents or as necessary to examine a suspected area. Removal of foreign material such as dirt, grease, etc., is required on all critical areas. Inspection of structures may be performed without removal of Corrosion Inhibiting Compounds (CICs) and should be performed with sufficient detail to detect all defects 2" long or greater.

All Delta Job Instruction Cards (JICs), Delta Engineering Orders (EOs), Airworthiness Directives, and Service Bulletins referenced can be found in Tables 1 through 4. Table 1 provides information on visual inspections conducted on the fuselage, while Table 2 provides details on the NDT inspections

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conducted on the fuselage. Tables 3 (Visual inspections) and 4 (NDT inspections) provide information of procedures used to inspect the wing structure.

### 3.1.1 Qualifications

Field inspections were performed by three qualified individuals. All eddy current inspections were performed by either the Delta or ASNT Level III in Eddy Current. Ultrasonic inspections were performed by the Delta Level III in Ultrasonics and Thermal/Infrared. Additionally this individual is ASNT (American Society of Nondestructive Testing) Level III certified in Thermal/Infrared. Both individuals also have A&P licenses. All visual inspections and some HFEC inspections were performed by a Senior Engineer, who is ASNT Level III certified in Ultrasonics, Eddy Current, and Liquid Penetrant, and trained in visual inspection.

### 3.2 Fuselage

All visual inspections conducted on the fuselage can be found in Table 1, while NDT inspections conducted on the fuselage can be found in Table 2. A body station diagram is shown for reference in Figure 2. Appendix A shows photographs of the initial walk-around inspections, locations of marked sections, and final condition of the removed sections for reference. Additional information on the sections can be found in Engineering Report 4-086459-20.

An external GVI to document the condition of the fuselage was conducted via JIC 5761. The most significant finding was a wavy or rippled skin panel found near stringer 19L from BS 259 to the L1 door. See Figure 3 for a photograph of this area. Several dents and a few punctures were noted near stringer 20R and 21R between BS 670 and 720B. However, these were likely made in Victorville by forklifts and other associated equipment used to position the aircraft on the shoring of cross-ties. Several repairs in the bilge were found, and corroded fasteners were discovered near the L1 and L2 doors.

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**Table 1. Visual inspections conducted on the fuselage at Victorville, CA.**

Inspection Type	Description	SSI	JIC	EO	AD	SB
GVI	External GVI of Fuselage		5761			
DVI	External DVI of Long Lap Joints	F-43	5748AD	4-226751-14	99-04-22, 02-07-09	727-53-0072
DVI	Internal DVI of Lap Joint 4L	F-43	58115AD	4-74176-12AD, ME -3	99-04-22, 02-07-09	727-53-0222
DVI	Internal DVI of Lap Joint 4R	F-43	58117AD	4-74176-12AD, ME -3	99-04-22, 02-07-09	727-53-0222
DVI	Internal DVI of Lap Joint 4L	F-43	58119AD	4-74176-12AD, ME -3	99-04-22, 02-07-09	727-53-0222
DVI	Internal DVI of Lap Joint 4R	F-43	58121AD	4-74176-12AD, ME -3	99-04-22, 02-07-09	727-53-0222
DVI	Internal DVI of Lap Joint 19L	F-43	58123AD	4-74176-12AD, ME -3	99-04-22, 02-07-09	727-53-0222
DVI	Internal DVI of Lap Joint 19R	F-43	58125AD	4-74176-12AD, ME -3	99-04-22, 02-07-09	727-53-0222
DVI	Internal DVI of Lap Joint 24R	F-43	58127AD	4-74176-12AD, ME -3	99-04-22, 02-07-09	727-53-0222
DVI	Internal DVI of Lap Joint 26L	F-43	58130AD	4-74176-12AD, ME -3	99-04-22, 02-07-09	727-53-0222
DVI	Internal DVI of Lap Joint 26R	F-43	58132AD	4-74176-12AD, ME -3	99-04-22, 02-07-09	727-53-0222
DVI	Internal DVI of Lap Joint 10R	F-43	58134AD	4-74176-12AD, ME -3	99-04-22, 02-07-09	727-53-0222
DVI	Internal DVI of Lap Joint 10L	F-43	58136AD	4-74176-12AD, ME -3	99-04-22, 02-07-09	727-53-0222
DVI	External DVI of Circ Butt Joint	F-41	5773AD		90-26-09 01-09-12	727-53-0084
DVI	External DVI of Circ Butt & Long Lap Joint	F41/F43	5734		90-26-09 01-09-12	727-53-0072, 727-53-0084
DVI	Internal DVI of Circ Butt Joint	F-41	5853AD		90-26-09 01-09-12	727-53-0084
DVI	Cockpit Cabin F-N Window Post	F-35	57134AD	4-35207-12AD	93-05-17	727-53-0086
DVI	LHS Vertical Flange, 1183 BH	F-28	58144AD	4-73994-12AD	99-18-05	727-53-0210 727-53-0055
DVI	RHS Vertical Flange, 1183 BH	F-28	58145AD	4-73994-12AD	99-18-05	727-53-0210 727-53-0055
DVI	Int. DVI-Aft Cabin	F-33	5898			727-53-0211

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	(Frames, Doors, Windows)					
DVI	Int DVI-Fwd Cabin (Frames, Doors)	F-33, F- 29	5897	4-58974-3		727-53-0188
DVI	Int DVI - E/E Compartment (lower frames)	F-33	5735			
DVI	Int. DVI-Aft Cabin (frames, 1183 strgers)	F-33, F- 45	5846			727-53-0211
DVI	Int DVI-Fwd Cabin (skin, joints)	F-45	5896			727-53-0041
DVI	Overwing Emergency Exit Hatches	F-9	5028			
DVI	Overwing Emergency Exit Hatches	F-9	5819AD		90-25-03	
DVI	Overwing Emergency Exit Hatches	F-9	5820AD		90-25-03	
DVI	Overwing Emergency Exit Hatches	F-9	58199AD		90-25-03	
DVI	Overwing Emergency Exit Hatches	F-9	5816AD		90-25-03	
DVI	Overwing Emergency Exit Hatches	F-9	5801AD		90-25-03	
DVI	L-1 Door Upper Hinge Area	F-14	58104	4-60829-12		727-53-0198
DVI	L-1 Door Lower Hinge Area	F-14	58105	4-60829-12		727-53-0198
DVI	Fuselage Frames 761, 784, WL 202-210		5865AD	4-61904-3AD	94-02-04	727-53-0197
DVI	MLG Wheel Well Pressure Floor	F-32	5075AD	4-36994-12AD	91-22-08	727-53-0124
DVI	Fwd Entry Doorway	F-14		4-59879-12 OPN 110		727-53-0198
DVI	Fwd Entry Doorway	F-14		4-59879-12 OPN 101		727-53-0198
DVI	BS 760.95 Frame to Wing Upper Rib Chord	F-55	4T158	4-64705-2		
DVI	Lower Keel Beam BS 870		5543	4-64433-3		727-53-0208

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Table 2. NDT inspections conducted on the fuselage at Victorville, CA.

Inspection Type	Description	Procedure	SSI	JIC	EO	AD	SB
UT	External UT of Tearstraps	Part 4, 53-30-27 Figure 1		8705AD	226736-14	90-20-18	727-53-0082
ET	External LFEC of Lap Joint 4L	Part 6, 53-30-27 Figure 13	F-43	57121AD	4-74176-12AD, ME -2	99-04-22, 02-07-09	727-53A0222
ET	External LFEC of Lap Joint 4R	Part 6, 53-30-27 Figure 13	F-43	57122AD	4-74176-12AD, ME -2	99-04-22, 02-07-09	727-53A0222
ET	External LFEC of Lap Joint 4L	Part 6, 53-30-27 Figure 13	F-43	57123AD	4-74176-12AD, ME -2	99-04-22, 02-07-09	727-53A0222
ET	External LFEC of Lap Joint 4R	Part 6, 53-30-27 Figure 13	F-43	57124AD	4-74176-12AD, ME -2	99-04-22, 02-07-09	727-53A0222
ET	External LFEC of Lap Joint 19L	Part 6, 53-30-27 Figure 13	F-43	57125AD	4-74176-12AD, ME -2	99-04-22, 02-07-09	727-53A0222
ET	External LFEC of Lap Joint 19R	Part 6, 53-30-27 Figure 13	F-43	57126AD	4-74176-12AD, ME -2	99-04-22, 02-07-09	727-53A0222
ET	External LFEC of Lap Joint 24L	Part 6, 53-30-27 Figure 13	F-43	57127AD	4-74176-12AD, ME -2	99-04-22, 02-07-09	727-53A0222
ET	External LFEC of Lap Joint 24R	Part 6, 53-30-27 Figure 13	F-43	57128AD	4-74176-12AD, ME -2	99-04-22, 02-07-09	727-53A0222
ET	External LFEC of Lap Joint 26L	Part 6, 53-30-27 Figure 13	F-43	57129AD	4-74176-12AD, ME -2	99-04-22, 02-07-09	727-53A0222
ET	External LFEC of Lap Joint 26R	Part 6, 53-30-27 Figure 13	F-43	57130AD	4-74176-12AD, ME -2	99-04-22, 02-07-09	727-53A0222
ET	External LFEC of Lap Joint 10R	Part 6, 53-30-27 Figure 13	F-43	57131AD	4-74176-12AD, ME -2	99-04-22, 02-07-09	727-53A0222
ET	External LFEC of Lap Joint 10L	Part 6, 53-30-27 Figure 13	F-43	57132AD	4-74176-12AD, ME -2	99-04-22, 02-07-09	727-53A0222
ET	External HFEC of Lap Joint 14, 19, 20, 24, 26	Part 6, 53-30-27 Figure 3 or 4	F-43	5770AD	4-64514-12AD	91-06-06	727-53-0072
ET	Internal MFEC of Lap Joint 4L	Part 6, 53-30-27 Figure 17	F-43	58116	4-74176-12AD, ME -3	99-04-22, 02-07-09	727-53A0222
ET	Internal MFEC of Lap Joint 4R	Part 6, 53-30-27 Figure 17	F-43	58118	4-74176-12AD, ME -3	99-04-22, 02-07-09	727-53A0222
ET	Internal MFEC of Lap Joint 4L	Part 6, 53-30-27 Figure 17	F-43	58120	4-74176-12AD, ME -3	99-04-22, 02-07-09	727-53A0222
ET	Internal MFEC of Lap Joint 4R	Part 6, 53-30-27 Figure 17	F-43	58122	4-74176-12AD, ME -3	99-04-22, 02-07-09	727-53A0222
ET	Internal MFEC of Lap Joint 19L	Part 6, 53-30-27 Figure 17	F-43	58124	4-74176-12AD, ME -3	99-04-22, 02-07-09	727-53A0222
ET	Internal MFEC of Lap Joint 19R	Part 6, 53-30-27 Figure 17	F-43	58126	4-74176-12AD, ME -3	99-04-22, 02-07-09	727-53A0222
ET	Internal MFEC of Lap Joint 24R	Part 6, 53-30-27 Figure 17	F-43	58129	4-74176-12AD, ME -3	99-04-22, 02-07-09	727-53A0222
ET	Internal MFEC of Lap Joint 26L	Part 6, 53-30-27 Figure 17	F-43	58131	4-74176-12AD, ME -3	99-04-22, 02-07-09	727-53A0222
ET	Internal MFEC of Lap Joint 26R	Part 6, 53-30-27 Figure 17	F-43	58133	4-74176-12AD, ME -3	99-04-22, 02-07-09	727-53A0222

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ET	Internal MFEC of Lap Joint 10R	Part 6, 53-30-27 Figure 17	F-43	58135	4-74176-12AD, ME -3	99-04-22, 02-07-09	727-53A0222
ET	Internal MFEC of Lap Joint 10L	Part 6, 53-30-27 Figure 17	F-43	58137	4-74176-12AD, ME -3	99-04-22, 02-07-09	727-53A0222
ET	External LFEC of Lap Joint 4L	Part 6, 53-30-27 Figure 13	F-43	8722	4-74176-12AD, ME -7	99-04-22, 02-07-09	727-53A0222
ET	External LFEC of Lap Joint 4R	Part 6, 53-30-27 Figure 13	F-43	8723	4-74176-12AD, ME -7	99-04-22, 02-07-09	727-53A0222
ET	External LFEC of Lap Joint 19L	Part 6, 53-30-27 Figure 13	F-43	8724	4-74176-12AD, ME -7	99-04-22, 02-07-09	727-53A0222
ET	External LFEC of Lap Joint 19R	Part 6, 53-30-27 Figure 13	F-43	8725	4-74176-12AD, ME -7	99-04-22, 02-07-09	727-53A0222
ET	External LFEC of Lap Joint 26L	Part 6, 53-30-27 Figure 13	F-43	8726	4-74176-12AD, ME -7	99-04-22, 02-07-09	727-53A0222
ET	External LFEC of Lap Joint 26R	Part 6, 53-30-27 Figure 13	F-43	8727	4-74176-12AD, ME -7	99-04-22, 02-07-09	727-53A0222
ET	External LFEC of Lap Joint 26R	Part 6, 53-30-27 Figure 13	F-43	8728	4-74176-12AD, ME -8	99-04-22, 02-07-09	727-53A0222
ET	L-1 Door Upper Hinge Area -HFEC	Part 6, 51-00-00, Figure 4	F-14	58104	4-60829-12		727-53-0198
ET	L-1 Door Lower Hinge Area -HFEC	Part 6, 51-00-00, Figure 4	F-14	58105	4-60829-12		727-53-0198
ET	Upper Pressure Panel BS 910-930, BL0 to RBL10	Part 6, 51-00-00, Figure 23	F-32	8603AD	4-60762-12AD	91-22-08	727-53A0124
ET	MLG Wheel Well Pressure Floor	Part 6, 51-00-00, Figure 23	F-32	8603AD	4-44698-12AD	90-17-06, 92-19-11	727-53-0149
ET	MLG Wheel Well Pressure Floor	Part 6, 51-00-00, Figure 4	F-32	8603AD	4-48698-3AD	90-17-06, 92-19-11	727-53-0149

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Table 3. Visual inspections conducted on the wing at Victorville, CA.

Inspection Type	Description	SSI	Job Cards	Engineering Orders	ADs	Service Bulletins
GVI	External GVI Left Wing		5535			
GVI	External GVI Right Wing		5635			
DVI	Wing Rear Spar Upper Chord- Vert Flange at WS 293	W-18	4T265/6	4-85519-12AD	02-04-06	727-57-0184
DVI	Outer Wing Upper Stringer to Rib		4T111AD	4-48895-12AD	88-17-06	727-57-0159
DVI	Outer Wing Upper Stringer to Rib		4T129AD	4-48895-12AD	88-17-06	727-57-0159
DVI	Wing Rib Upper Chord at BS 70.85 (L)	W-33	4T163AD/4 T164AD	4-58560-12AD	94-07-08	727-57-0112
DVI	Wing Rib Upper Chord at BS 70.85 (R)	W-33	4T163AD/4 T164AD	4-58560-12AD	94-07-08	727-57-0112

Table 4. NDT inspections conducted on the wing at Victorville, CA.

Inspection Type	Description	NDT Procedure	SSI	Job Cards	Engineering Orders	ADs	Service Bulletins
ET	Wing Rear Spar Upper Chord- Vert Flange at WS 293	Part 6, 51-00-00, Figure 4 or 23	W-18	4T265/6	4-85519-12AD	02-04-06	727-57-0184
ET	Outer Wing Upper Stringer to Rib - HFEC	Part 6, 51-00-00, Figure 4 or 23		4T111AD/8 502AD	4-48895-12AD	88-17-06	727-57-0159
ET	Outer Wing Upper Stringer to Rib - HFEC	Part 6, 51-00-00, Figure 4 or 23		4T129AD	4-48895-12AD	88-17-06	727-57-0159
ET	Wing Rib Upper Chord at BS 70.85 (L)	Part 6, 51-00-00, Figure 4 or 23	W-33	4T163AD/4 T164AD	4-58560-12AD	94-07-08	727-57-0112 727-57-0127
ET	Wing Rib Upper Chord at BS 70.85 (R)	Part 6, 51-00-00, Figure 4 or 23	W-33	4T163AD/4 T164AD	4-58560-12AD	94-07-08	727-57-0112 727-57-0127

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### 3.2.1 Longitudinal Lap Joints

Longitudinal lap joints, B727 SSID Item F-43, were inspected with both visual and NDT inspections, see Tables 1 and 2. Figure 4 shows the areas of the longitudinal lap joints which require inspections per Service Bulletin 727-53-0222.

#### 3.2.1.1 External Detailed Visual Inspection

An external DVI of longitudinal lap joints was conducted via JIC 5748AD (4-226751-14AD, AD 91-06-06, SB 727-53-0072) to examine for cracking in the upper skin, upper row of fasteners. See Figure 5 for a depiction of typical cracking of this detail. Additionally, the inspection also examines for corrosion in the joint.

Areas inspected include stringers 10L and 10R from BS 259 to BS 1183, stringers 14L and 14R from BS 178 to BS 360, stringers 19L and 19R from BS 178 to BS 740, stringers 20L and 20R from BS 950 to BS 1183, stringers 24L and 24R from BS 178 to BS 360, and stringers 26L and 26R from BS 360 to BS 740 and from BS 950 to BS 1183. Stringers 26L and 26R were not accessible for inspection from BS 420 to BS 520 due to the presence of the shoring.

No indications of cracking were found during the external detailed visual inspection. However, corroded fasteners were noted in the vicinity of the longitudinal lap joint at stringer 24R and BS 335, stringers 19R and BS 620, stringer 19L and BS 440, stringer 19L between BS 340 and BS 360, and stringer 26L and BS 1010. Dents were found on stringer 19R at BS 720D and between BS 720 and BS 720A.

Paint was found flaking and/or bulging at several locations, providing an early indication of possible corrosion damage. Locations affected include stringer 10L and BS 635, stringer 10R between BS 1070 and BS 1150, stringer 10L between BS 470 and BS 480, stringer 10L between BS 259 and BS 303.5, stringer 10R near BS 850, and stringer 10L between BS 1120 and BS 1148. The areas at stringer 10L between BS 1120 and 1148, and stringer 10R near BS 850 also had a slight gap between the skins and corrosion on the exposed Aluminum surface (See Figures 6 and 7).

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### 3.2.1.2 External HFEC Inspection

An external HFEC was performed on the longitudinal lap joints at stringers 19, 20, 24, and 26 left and right from BS 259 to BS 1183 per B727 NDT Manual, Part 6, 53-30-27, Figure 3 to examine for cracking in the upper row of the longitudinal lap joints (See Figure 5). A photograph of the inspection being conducted on stringer 24L is presented in Figure 8.

JICs which provide these instructions are 5769AD and 5770AD (4-64514-12AD, AD 91-06-06, SB 727-53-0072). No indications were noted at these locations. Stringers 26L and 26R were not accessible for inspection from BS 420 to BS 520 due to the presence of the shoring. Stringer 26L was also not inspected from BS 500 to BS 600 due to the presence of protruding head fasteners.

### 3.2.1.3 External LFEC (Sliding Probe) Inspection

External LFEC was performed on the longitudinal lap joints to examine for cracking in the lower row, lower skins using B727 NDT Manual, Part 6, 53-30-27, Figure 13. The external LFEC was conducted via JICs 57121AD-57133AD, 8722AD-8728AD, 8005AD-8006AD, and 8709AD (4-74176-12AD, AD 99-04-02, AD 02-07-09, SB 727-53-0222). Figure 4 shows areas which require the inspection per Service Bulletin 727-53-0222. A photograph of the inspection being conducted on stringer 4L is presented in Figure 9.

Stringer 26R was inspected with external LFEC sliding probe from BS 455 to BS 481, BS 486 to BS 514, BS 660 to BS 720, and BS 1030 to BS 1070. Indications were noted at BS 660, 3<sup>rd</sup> rivet and BS 1050, 5<sup>th</sup> rivet. However, neither indication was rejectable. Screen representations of each of the indications is provided in Figures 10 and 11.

No indications were noted on stringer 26L from BS 600 to BS 644, and BS 686 to BS 720, stringer 24L from BS 259 to BS 277, stringer 24R from BS 313 to BS 328, and BS 337 to BS 350, stringer 19L from BS 259 to BS 285, BS 360 to BS 441, BS 446 to BS 675, and BS 683 to BS 720C, stringer 19R from BS 259 to BS 290, BS 316 to BS 350, BS 365 to BS 436, and BS 683 to BS 720C, stringer 10L from BS 259 to BS 293, stringer 10R from BS 259 to BS 360, and stringer 4L

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from BS 259 to BS 440. LFEC inspection was not conducted on stringer 4R from BS 950C to BS 1002, and BS 1030 to BS 1143, and stringer 4L from BS 440 to BS 720E, BS 950C to BS 1002, and BS 1030 to BS 1143. However, these areas did receive the internal MFEC inspection, which is a more sensitive inspection, with no indications noted.

Twenty indications were found at 18 fasteners on stringer 4R from BS 259 to BS 720E as shown in Table 5. The locations of the indications are shown on a schematic for reference in Figure 12. Two of these indications on two fasteners were not confirmed by internal MFEC and could be false-calls. Figure 13 shows a representative rejectable signal from the LFEC inspection at stringer 4R, BS 520, 14<sup>th</sup> rivet location. Other screen representations of indications are found in Appendix B and are similar to the scan shown in Figure 13.

Table 5. Indications found on the longitudinal lap joint at stringer 4R with LFEC sliding probe. Italics indicates indications which were not confirmed with internal MFEC.

<b>Station</b>	<b>Rivet Number</b>	<b>Forward/Aft/Both</b>
480	2	<i>Forward</i>
520	11	Forward
520	13	Forward/Aft
520	14	Forward/Aft
520	15	Forward
540	3	Forward
600	9	Forward
600	11	Forward
660	13	Aft
680	5	<i>Aft</i>
720	4	Aft
720	5	Forward
720A	4	Forward
720B	1	Forward
720B	5	Forward
720B	7	Forward
720B	8	Forward
720C	8	Forward

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### 3.2.1.4 Internal Detailed Visual Inspection

An internal DVI was conducted via JICs 58115AD, 58117AD, 58119AD, 58121AD, 58123AD, 58125AD, 58127AD, 58130AD, 58132AD, 58134AD, and 58136AD (4-74176-12AD, AD 99-04-02, AD 02-07-09, SB 727-53-0222). The inspection examined for cracking on the lower row of fasteners of the longitudinal lap joint. Figure 4 shows areas which require the inspection per Service Bulletin 727-53-0222.

No indications were noted on stringer 10L from BS 277 to BS 360, stringer 10R from BS 259 to BS 293, stringer 4L from BS 277 to BS 294, BS 350 to BS 360, BS 440 to BS 720E, and BS 1030 to BS 1143, stringer 4R from BS 277 to BS 500, and BS 1030 to BS 1143, stringer 19L from BS 259 to BS 285, stringer 19R from BS 259 to BS 290, and BS 316 to BS 350, stringer 24L from BS 312 to BS 328, and BS 337 to BS 355, stringer 26L from BS 480 to BS 500, BS 520 to BS 580, and BS 600 to BS 644, and stringer 26R from BS 480 to BS 500.

Four indications were found between BS 400 and BS 440 on stringer 4L. These are shown in Table 6 and Figure 12. Thirty-four indications were found on stringer 4R from BS 500 to BS 720E. Four of these indications were determined to be “false calls” after comparing the results with the internal MFEC. The remaining 34 indications were verified with internal MFEC. These are also found in Table 6 with reference locations shown in Figure 12.

Figure 14 shows a representative photograph of cracks found during the detailed visual inspection of stringer 4R. Additional photographs showing indication locations can be found in Appendix C.

### 3.2.1.5 Internal MFEC Inspection

Internal MFEC was performed on the longitudinal lap joints to examine for cracking in the lower row of fasteners on the lower skins using B727 NDT Manual, Part 6, 53-30-27, Figure 17.

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The internal MFEC was conducted on JICs 58116AD, 58118AD, 58120AD, 58122AD, 58124AD, 58126AD, 58129AD, 58131AD, 58133AD, 58135AD, 58137AD, 58138AD, and 58141AD (4-74176-12AD, AD 99-04-02, AD 02-07-09, SB 727-53-0222). The inspection examined for cracking on the lower row of fasteners of the longitudinal lap joint. Figure 15 shows the inspection being conducted at stringer 4R.

No indications were noted on stringer 10L from BS 360 to BS 720E, stringer 10R from BS 280 to BS 360, stringer 4L from BS 277 to BS 294, BS 350 to 400, BS 440 to BS 720E, and BS 1030 to BS 1143, stringer 4R from BS 277 to BS 420, and BS 1030 to BS 1110, stringer 19L from BS 259 to BS 285, stringer 19R from BS 259 to BS 290, and BS 316 to BS 350, stringer 24R from BS 312 to BS 328, and BS 337 to BS 350, stringer 26L from BS 480 to BS 500, BS 520 to BS 580, and BS 600 to BS 644, and stringer 26R from BS 480 to BS 500. Access was limited in some areas due to lack of open-up in the E/E compartment, cockpit, and bag-bin areas.

Thirteen indications were found at nine fastener locations between BS 400 and BS 440 on stringer 4L. These results are found in Table 7 and Figure 12. Four of these indications were found visually. A screen representation showing a typical rejectable indication is shown Figure 16. Other screen representations of indications are found in Appendix B and are similar to the scan shown in Figure 16.

One hundred fifty nine (159) indications were found on stringer 4R from BS 420 to BS 720E. These are shown in Table 8 with reference locations pictured in Figure 12 and Appendix C. One hundred fastener sites displayed indications, with the most fasteners affected between BS 720B to BS 720C (13 fasteners) and BS 540 to BS 560 (12 fasteners).

A comparison of indications and fasteners noted per bay from internal MFEC, external LFEC, and internal DVI is shown in Table 9. Additionally, this can be seen in Figure 12. One hundred nine (109) fasteners were noted with indications on stringers 4L and 4R with the internal MFEC inspection (Table 9). External LFEC inspection only found 18 of these, while internal detailed visual inspection only noted 34 fastener locations.

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Table 6. Indications from the internal detailed visual inspection of the longitudinal lap joints.

<b>Stringer</b>	<b>BS Panel</b>	<b>Rivet Number</b>	<b>False/Verified</b>
4L	400-420	11	Verified
4L	400-420	15	Verified
4L	420-440	5	Verified
4L	420-440	10	Verified
4R	500-520	9	Verified
4R	520-540	8	Verified
4R	520-540	9	Verified
4R	520-540	10	Verified
4R	520-540	11	Verified
4R	520-540	12	False
4R	520-540	13	Verified
4R	520-540	14	Verified
4R	540-560	3	Verified
4R	540-560	4	Verified
4R	540-560	5	Verified
4R	540-560	6	Verified
4R	540-560	7	Verified
4R	540-560	8	Verified
4R	540-560	9	Verified
4R	540-560	10	Verified
4R	540-560	13	Verified
4R	540-560	14	Verified
4R	540-560	15	False
4R	560-580	11	Verified
4R	600-620	9	Verified
4R	600-620	10	Verified
4R	600-620	11	Verified
4R	620-640	4	Verified
4R	620-640	5	Verified
4R	620-640	6	Verified
4R	620-640	7	Verified
4R	620-640	9	Verified
4R	680-700	8	False
4R	720-720A	9	Verified
4R	720-720A	11	Verified
4R	720-720A	12	Verified
4R	720D-720E	8	Verified
4R	720D-720E	10	False

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Table 7. Indications found on the longitudinal lap joint at stringer 4L with internal MFEC.

<b>Station</b>	<b>Rivet Number</b>	<b>Forward/Aft/Both</b>
400	5	Forward
400	10	Forward/Aft
400	11	Forward/Aft
400	15	Forward
420	3	Forward/Aft
420	4	Forward/Aft
420	5	Forward
420	6	Forward
420	10	Forward

### 3.2.2 Circumferential Butt Joints

Circumferential butt joints at BS 259, 360, 441, 481, and 681(B727 SSID Item F41), were visually inspected internally from stringer 10L to 10R and externally except for the crown (between stringer 4L and 4R). The external DVI was performed from JIC 5773AD (AD 90-26-09, SB 727-53-0084) and the internal DVI per JIC 5853AD (AD 90-26-09, SB 727-53-0084). See Figures 17 and 18 for location and typical cracking details.

Table 8. Indications found on the longitudinal lap joint at stringer 4R with internal MFEC.

<b>Station</b>	<b>Rivet Number</b>	<b>Forward/Aft/Both</b>
420	11	Aft
440	10	Forward
480	1	Aft
500	9	Forward/Aft
500	10	Forward
500	11	Forward
520	3	Forward
520	8	Aft
520	9	Aft
520	10	Forward/Aft
520	11	Forward/Aft
520	13	Forward/Aft
520	14	Forward/Aft
520	15	Forward/Aft

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540	3	Forward/Aft
540	4	Forward/Aft
540	5	Forward/Aft
540	6	Forward/Aft
540	7	Forward/Aft
540	8	Forward/Aft
540	9	Forward
540	10	Forward/Aft
540	11	Forward/Aft
540	12	Aft
540	13	Aft
540	14	Forward/Aft
560	3	Aft
560	6	Forward
560	8	Aft
560	9	Aft
560	10	Forward/Aft
560	11	Forward
580	3	Forward
580	5	Aft
580	6	Aft
580	8	Forward
580	9	Forward/Aft
580	10	Forward/Aft
580	11	Forward/Aft
580	12	Forward/Aft
580	13	Forward
580	14	Forward
600	9	Forward/Aft
600	10	Forward/Aft
600	11	Forward/Aft
600	12	Forward/Aft
600	13	Forward
620	4	Forward/Aft
620	5	Forward/Aft
620	6	Forward/Aft
620	7	Forward
620	9	Forward
660	8	Forward/Aft
660	9	Forward/Aft

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660	13	Forward/Aft
660	14	Forward/Aft
680	12	Forward/Aft
700	6	Forward
700	7	Forward
700	8	Forward
700	9	Forward
700	10	Forward
700	11	Forward
720	4	Forward/Aft
720	5	Forward/Aft
720	6	Forward/Aft
720	7	Forward/Aft
720	8	Forward/Aft
720	9	Forward/Aft
720	10	Forward/Aft
720	11	Forward/Aft
720	12	Forward/Aft
720A	2	Forward
720A	3	Forward/Aft
720A	4	Forward
720A	5	Forward/Aft
720A	6	Forward/Aft
720A	7	Forward/Aft
720A	8	Forward/Aft
720A	9	Forward/Aft
720B	1	Forward/Aft
720B	3	Aft
720B	4	Forward/Aft
720B	5	Forward/Aft
720B	6	Forward/Aft
720B	7	Forward/Aft
720B	8	Forward/Aft
720B	9	Forward/Aft
720B	10	Forward/Aft
720B	11	Forward/Aft
720B	12	Forward
720B	13	Forward/Aft
720B	14	Forward/Aft
720C	6	Forward/Aft

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720C	7	Forward
720C	8	Forward/Aft
720C	15	Forward/Aft
720D	6	Aft
720D	7	Aft
720D	8	Aft

Table 9. Number of indications and fasteners from internal MFEC inspections with comparisons to internal detailed visual and external LFEC sliding probe inspections.

<b>Stringer/ Stations</b>	<b># MFEC Indications</b>	<b># MFEC Fasteners</b>	<b># LFEC Fasteners</b>	<b># DVI Fasteners</b>
4L/400-420	6	4	0	2
4L/420-440	7	5	0	2
4R/420-440	1	1	0	0
4R/440-460	1	1	0	0
4R/480-500	1	1	1	0
4R/500-520	4	3	0	1
4R/520-540	13	8	4	6
4R/540-560	21	12	1	10
4R/560-580	7	6	0	1
4R/580-600	13	10	0	0
4R/600-620	9	5	2	3
4R/620-640	8	5	0	5
4R/660-680	8	4	1	0
4R/680-700	2	1	1	0
4R/700-720	6	6	0	0
4R/720-720A	18	9	2	3
4R/720A-720B	14	8	1	0
4R/720B-720C	24	13	4	0
4R/720C-720D	6	4	1	0
4R/720D-720E	3	3	0	1
<b>Totals</b>	<b>172</b>	<b>109</b>	<b>18</b>	<b>34</b>

Corroded fasteners were noted at stringer 17L and BS 259, stringer 16R and BS 259, and between stringer 16L and 14L and BS 259. Flaked paint was noted between stringers 16L and 8L at BS 259, and between stringers 10R and 17R at BS 360.

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### 3.2.3 Tear Straps (Crown)

The tear straps were examined by an external ultrasonic inspection per the B727 NDT Manual, Part 4, 53-30-27, Figure 1, which is specified in JIC 8705AD (Delta ER/A 4-226736-14, AD 90-20-18, SB 727-53-0082). The inspection used the S-9R Bond Tester from Zetec. Stringers 4R, 4L, and 10L were inspected from BS 277 through 1010, and stringer 10R was inspected from BS 277 through 600.

The inspection was limited to the areas of the tear straps in the general area of the lap joints at Stringers 4 and 10, and the crown area between stringers 4L and 4R. Figures 19 and 20 show photographs of the inspector conducting the ultrasonic tear strap inspection.

Eleven areas were found to produce indications during the inspection. Five areas were noted at stringer 10R, two on stringer 10L, three on stringer 4R, and one on stringer 4L. These results can be found in Table 10, and a screen representation of a typical signal is found in Figure 21. Other screen representations of indications are found in Appendix D and are similar to the scan shown in Figure 21.

Most of the indications, including all five on stringer 10R, were located in the 3 X 3 rivet pattern near the lap joint. Figure 22 shows a schematic which represents these indications in the rivet pattern, between the fasteners (1" diameter indication shown).

The three indications on stringer 10L and stringer 4L are likely a gap between the tab and skin below the end of the tear strap. Figure 23 provides a depiction of the indications on the aircraft which was marked during the inspection. Figures 24-26 show photographs of the internal structure revealing a slight gap between the tab and skin below the tear strap end which provides a possible reason for the indications. However, this area is likely the start of a debond. Therefore it was noted and recorded. To evaluate the indication, the inspector examined the tear strap from the inside to discover the gap possibility.

The three indications on stringer 4R all begin 3.5" above the top skin edge, which may indicate some unknown structure produced the signals, instead of a debond. Figure 27 shows a representation of the

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indications found in these areas. It is not clear whether these signals are from a gap at the intersection of the skin and tear strap (i.e., the start of a debond), or are fully debonded.

### 3.2.4 Cockpit Cabin Window Post & Frames

The cockpit window posts (SSID F-35, See Figure 28) were examined with a detailed visual inspection via JIC 57134AD (4-35207-12AD, AD 93-05-17) with no indications noted. The left side had a repair with protruding head fasteners performed via AD 93-05-17. The right side had a few corroded rivets, but otherwise nothing of note.

Table 10. Indications found during the ultrasonic inspection of the tear straps for debonds.

Stringer	Body Station	Description
10R	328	1" X 1" Square in Rivet Pattern
10R	344	1" X 6" area in Rivet Pattern
10R	440	1" diameter circle in Rivet Pattern
10R	500	1" diameter circle in Rivet Pattern
10R	560	1" diameter circle in Rivet Pattern
10L	500	Between the stringer row of rivets and the tear strap 3 X 3 Rivet Pattern
10L	520	Between the stringer row of rivets and the tear strap 3 X 3 Rivet Pattern
4R	277	Begins 3.5" above lap joint edge, ends 12.5" above skin lap joint; 9" total
4R	312	Begins 3.5" above lap joint edge, ends 5.5" above skin lap joint; 2" total
4R	344	1" diameter circle located 3.5" above outer skin edge
4L	950A	Between the stringer row of rivets and the tear strap 3 X 3 Rivet Pattern

### 3.2.5 Crown Stringers, Clips, and Frame Attachments

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The crown stringer joints, frames, and clips from 1148-1183 (SSID F-33, F-45) were examined for cracking, loose or missing fasteners, and corrosion by an internal DVI via JIC 5846. The forward cabin skin, stringer clips, frames, and stringer joints (SSID F-45) were inspected with an internal DVI via JIC 5896. No indications were noted aft of the wings, but eight stringer clips containing nine indications were flagged for further evaluation. Seven of these clips were found on stringers 2R-4R, in the area which produced many lap joint indications. These indications are described in Table 11. Figure 29 shows a photograph of a typical suspected cracked stringer clip. Additional photographs can be found in Appendix E.

Table 11. Indications found during the detailed visual inspection of the stringer clips.

Stringer	Body Station	Description
4R	600	Indication from lower fastener
4R	660	Indication from lower fastener
2R	680	Two indications from lower fastener; One is likely scratch
3R	680	Indication from lower fastener
4R	720	Indication from upper fastener
4R	720A	Two indications, one from each fastener
3R	720A	Indication from upper fastener
4L	720A	Indication from upper fastener

### 3.2.6 BS 178 Pressure Bulkhead

The BS 178 Pressure Bulkhead was examined by a detailed visual inspection via JIC 5789 (ER/A 4-257437-14) with no indications noted.

### 3.2.7 BS 1183 Pressure Bulkhead

The BS 1183 Pressure Bulkhead was examined by a detailed visual inspection via JICs 58144AD, 58145AD (4-69150-12, 4-61387-12AD, 4-73994-12AD, AD 90-24-11, AD 99-18-05) with no indications noted.

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### 3.2.8 Window and Door Frame Cutouts

Window cutouts were examined with no indications noted. The window cutouts just forward and aft of BS B950, reinforcement chords, and other associated structural members were examined by a DVI (JICs 5897, 5898). The L1 Door, SSID F-14, was also inspected by a DVI and HFEC via JICs 58104 and 59105 and SI 4-59879-12 (4-60829-3, AD 94-05-04, SB 727-53-00198, SB 727-53-0186). See Figure 30 for details on the L1 door inspections.

The overwing emergency exit hatches were inspected via an internal DVI per JICs 5028, 5819AD, 5820AD, 5801AD, 5816AD, and 58199AD (AD 90-25-03). Eight indications were noted at seven locations, but were not evaluated with HFEC. These indications are described in Table 12 and Figures 31 through 34 show the approximate locations. Figure 35 shows a photograph of a typical indication, and additional photographs of the other indications can be found in Appendix F.

Table 12. Indications found during the detailed visual inspection of the overwing emergency exit hatch areas.

Stringer	Body Station	Description
16L	783.95	Indication in the tab on reverse side of frame flange on aft side of forward door
15L/16L	848.95	Indication on reverse side of frame flange on aft side of aft door
16R	848.95	Indication in the tab on reverse side of frame flange on aft side of aft door
15R/16R	848.95	Indication on reverse side of frame flange on aft side of aft door
15R/16R	848.95	Indication in the tab on aft side of aft door
15R/16R	848.95	Indication on reverse side of frame flange on aft side of aft door
16R	804.5	Indication on stringer 16 between the doors (2 indications, one out of radius and one out of hi-lok)

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### 3.2.9 Forward Shear-tied Frames (Crown)

The forward shear tied frames (SSID F-29) were examined with no indications noted. A DVI was conducted on the frames at BS 440, 460, 480, and 264.5 (JIC 5735). Also, frames at BS 761 and 784 were inspected by DVI per JICs 5865AD and 50122 (4-61904-3AD, 4-64705-2, AD 94-02-04, SB727-53-0197) and HFEC inspected per JICs 8813AD and 8814AD (4-61904-3AD, AD 94-02-04, SB727-53-0197).

### 3.2.10 Keel Beam and MLG Wheel Well Pressure Deck

A HFEC inspection of the upper pressure panel between BS 910-930 from BL 0 to RBL 10 was conducted via JIC 8603AD (4-60762-12AD, AD 91-22-08, SB 727-53A0124). A DVI was conducted of the MLG wheel well pressure floor per JIC 5075AD (4-36994-12AD, AD 91-22-08, SB 727-53-0124). See Figure 36 for further inspection details. HFEC was also conducted on the wheel well pressure floor at BS 880, 890, 930, 940, and 950 per JIC 5087AD and 50132AD (4-44698-3AD, AD 90-17-06, AD 92-19-11, SB 727-53-0149). The keel beam at BS 870 was inspected for cracking in the vertical flanges and support angles with DVI via JIC 5543 and HFEC inspected via JIC 5544 (4-64433-3). Figure 37 shows the inspection location. None of the inspections on the keel beam or main wheel well pressure floor produced indications of note.

## 3.3 Wing

All visual inspections conducted on the wings at Victorville, California, can be found in Table 3, while NDT inspections conducted on the wings can be found in Table 4. A wing station diagram is shown for reference in Figure 38. Appendix A shows photographs of the initial walk-around inspections, locations of marked sections, and final condition of the removed sections.

An external GVI of the left and right wings to document condition was conducted via JICs 5535 and 5635 with no indications noted. Included in this task are examination of the rear spar chords and wing skin for rivet looseness, cracking, and corrosion.

### 3.3.1 Front Spar (Center Section)

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A detailed visual inspections was performed on the center section, front spar (SSID W-1) with no indications noted. Inspection was conducted via JIC 4T153AD (4-59405-12AD, AD 00-02-19, SB 727-57-0177).

### **3.3.2 Rear Spar Upper Chord at WS 293**

Inspections of the rear spar upper chord, vertical flange at WS 293 did not reveal any indications. See Figure 39 for a photograph of the inspection area and Figure 40 for a depiction of the typical cracking. A detailed visual inspection was performed via JIC 50182AD (4T265, 4-85519-12AD, AD 02-04-06, SB 727-57-0184). A HFEC inspection of the same areas was conducted via JIC 8003AD (4T266, 4-85519-12AD, AD 02-04-06, SB 727-57-0184).

### **3.3.3 Outer Wing Upper Skin Stringer-to-rib Attachments**

The outer wing, upper skin stringer-to-rib attachments were HFEC inspected per JIC 8502AD (4T111AD, 4T129AD, 4-48895-12, AD 88-17-06) with no indications noted. See Figure 41 for inspection details. WS 546.5 and WS 686.5 on the right wing could not be inspected due to oversized fasteners and repairs (See Figure 42). A detailed visual inspection of the same areas was completed via JIC 4T11AD and 4T129AD. The only item of note was a repair joint and corroded fasteners found at WS 519 on the left wing.

### **3.3.4 Fuselage-to-wing Attachments**

The fuselage wing structure between BS 760.95 and 783.95 were inspected with a DVI per JIC 4T158 (4-64705-2) with no indications. The wing rib upper chords at BS 70.85 were inspected with DVI per JIC 4T163AD (4-58560-12AD, AD 94-07-08) with no indications. See Figure 43 for a schematic showing inspection location.

## **3.4 Advanced Inspection Technologies**

Several advanced NDT techniques are to be examined through the course of the contract (Tasks 6, 11). During the visit to Victorville, California, the Forester Rivetcheck was conducted on the lower row

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of some lap joints via B727 NDT Manual, Part 6, 53-30-27, Figure 25. The Rivetcheck system was developed by NASA (Self-nulling probe) as a new technique to examine for interlayer and surface cracking and is compared to the LFEC Sliding Probe.

At stringer 26L, 10 fasteners between BS 600 and 620, and all fasteners on stringer 19R, between BS 683 and 720A were examined with no indications noted. On stringer 26R at BS 660, the 3<sup>rd</sup> rivet produced a signal, which was nonrejectable, similar to an oblong hole. Also on stringer 26R, at BS 1050, the 5<sup>th</sup> rivet produced a nonrejectable indication. These two rivets produced an indication with the LFEC Sliding Probe and were discussed previously.

#### **CHAPTER 4. REFERENCES**

1. FAA Contract DTFA03-02-C-00044
2. Boeing 727 NDT Manual (D6-48875)
3. B727 Supplemental Structural Inspection Document (D6-48040-1)
4. B727 Maintenance Planning Document (D6-8766).
5. Delta Technical Operations Policies and Procedure (TOPP) 40-10-10

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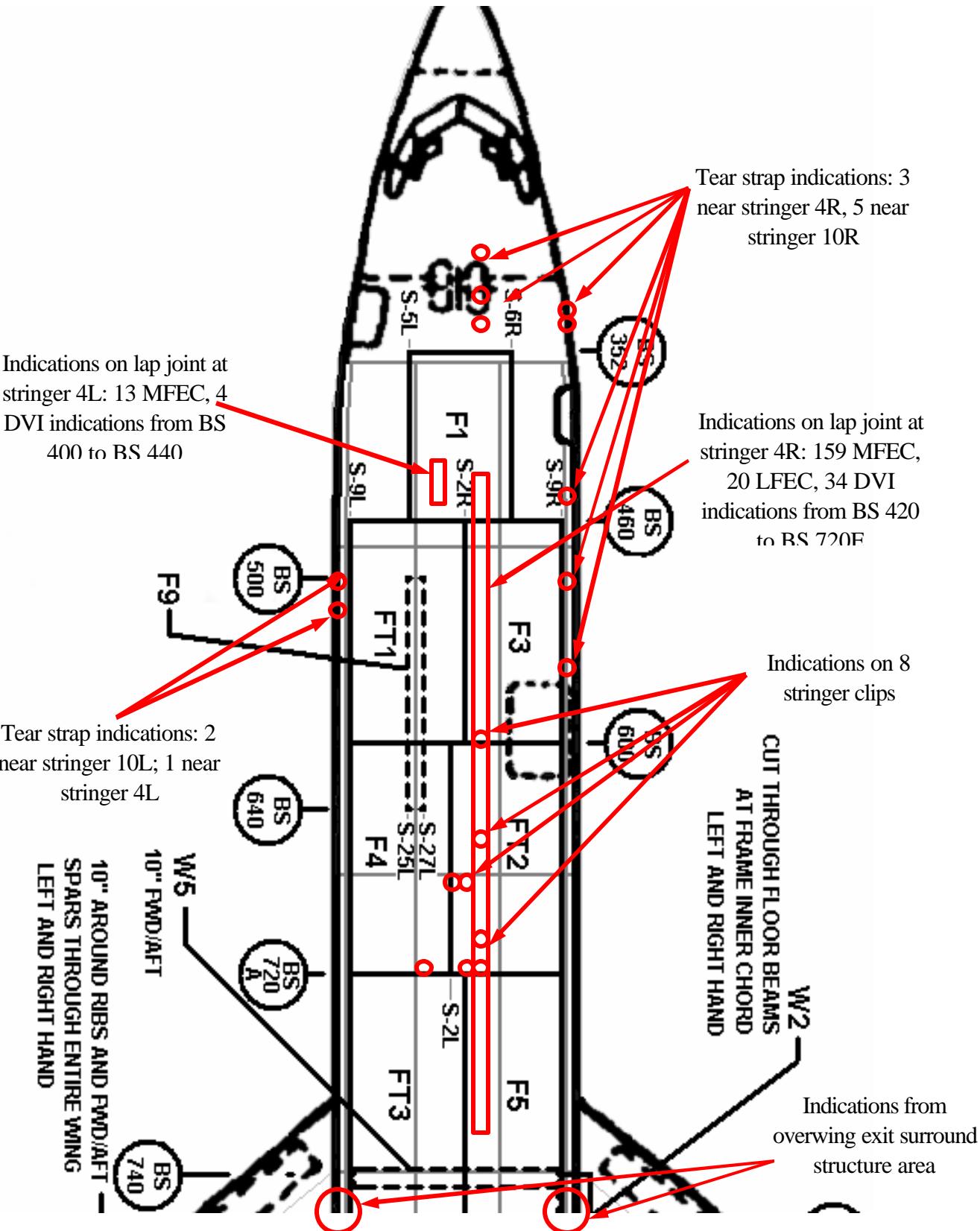


Figure 1. Indication location diagram.

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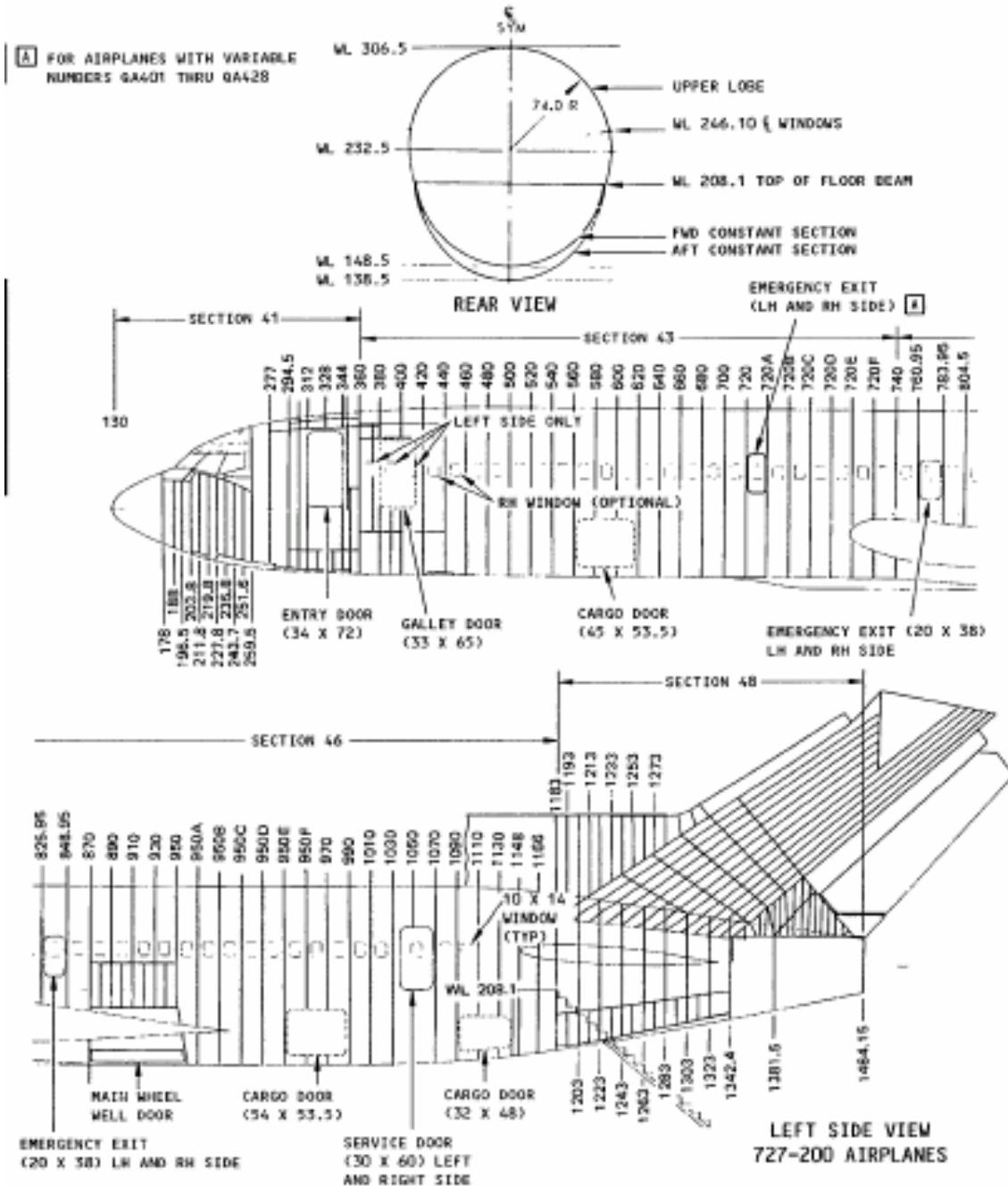


Figure 2. Schematic of B727 body station diagram

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Figure 3. Photograph of wavy or rippled skin found near stringer 19L between FS 259 and the L1 door.

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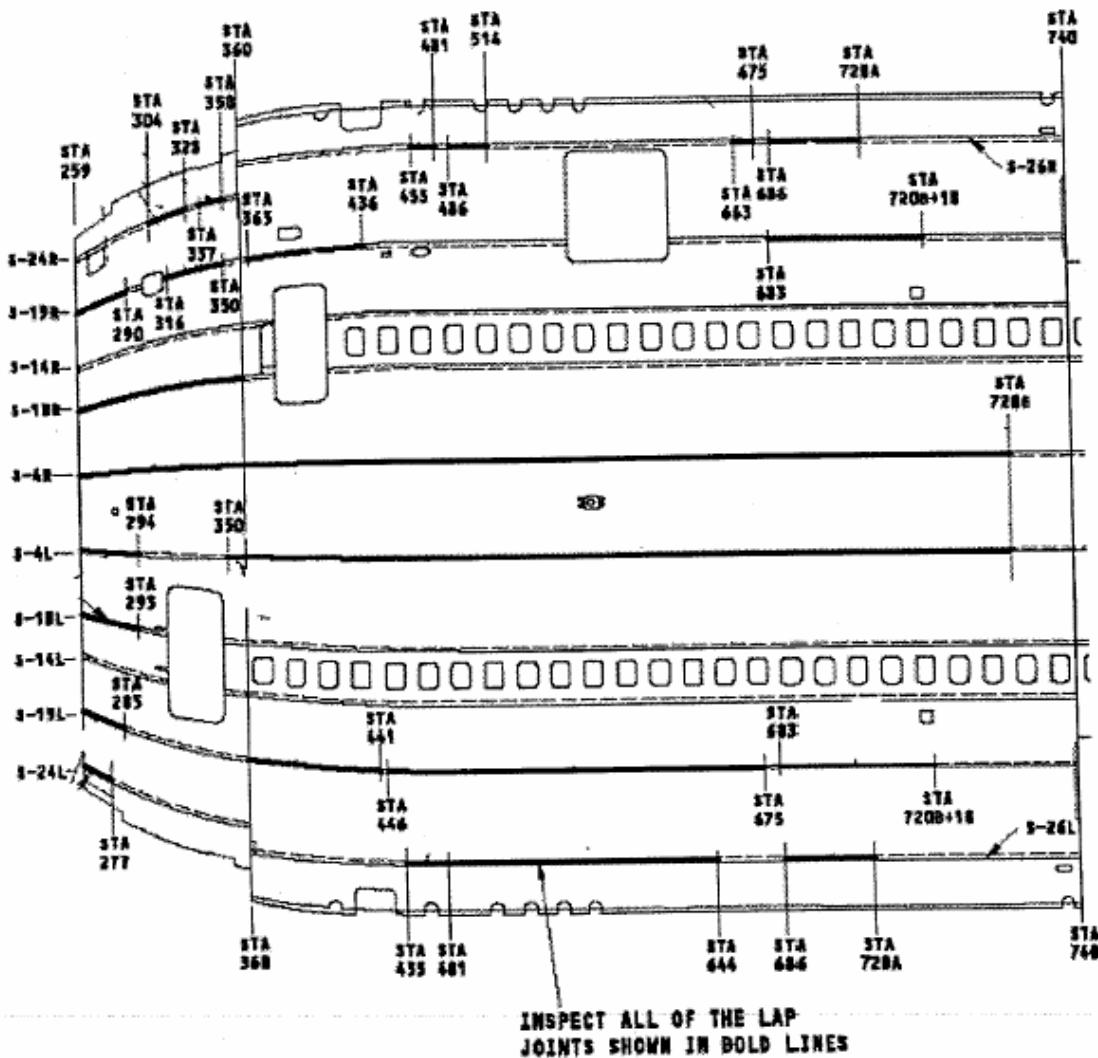


Figure 4a. Schematic showing lap joint locations which require inspections per Service Bulletin 727-53-0222.

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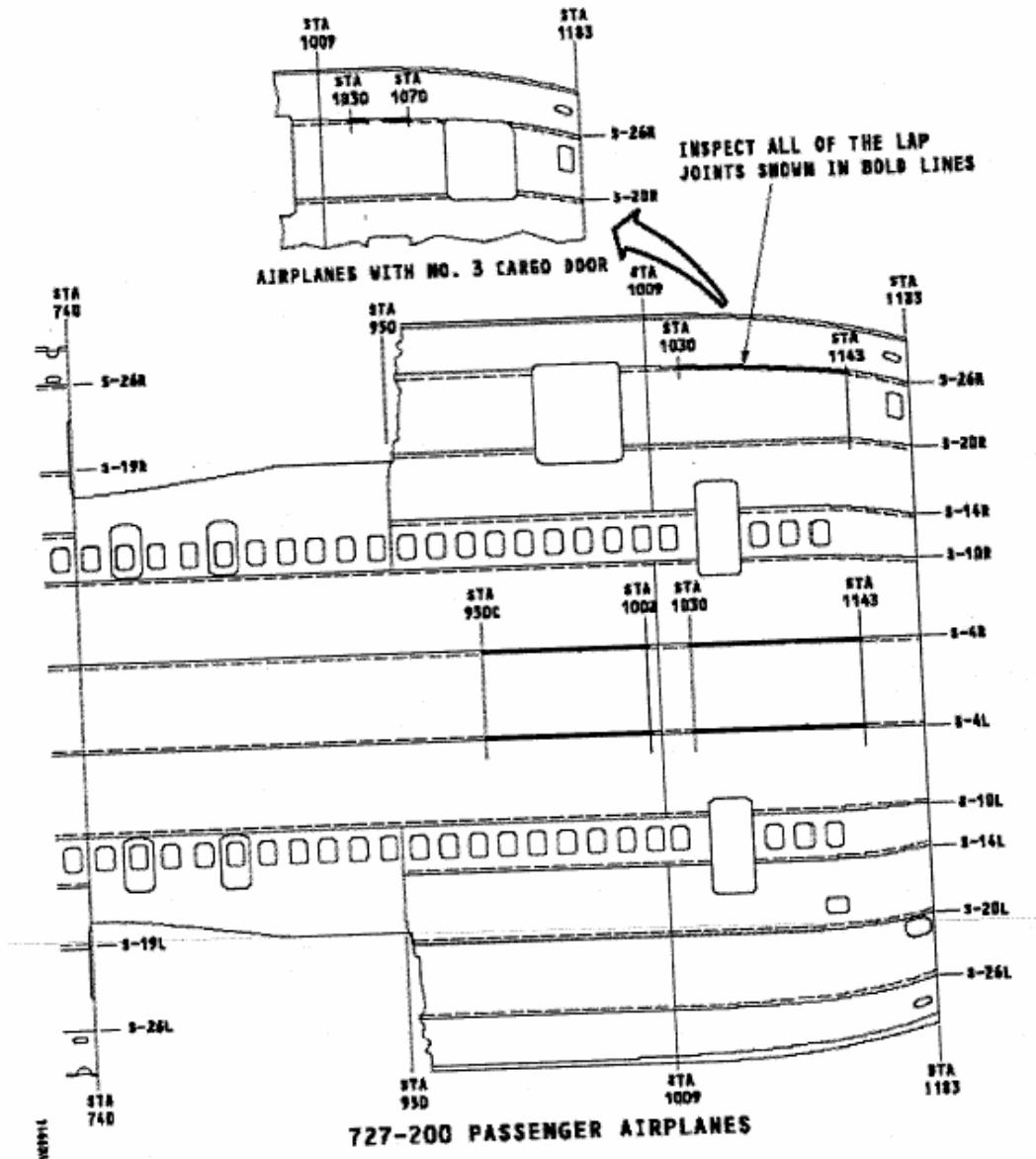


Figure 4b. Schematic showing lap joint locations which require inspections per Service Bulletin 727-53-0222.

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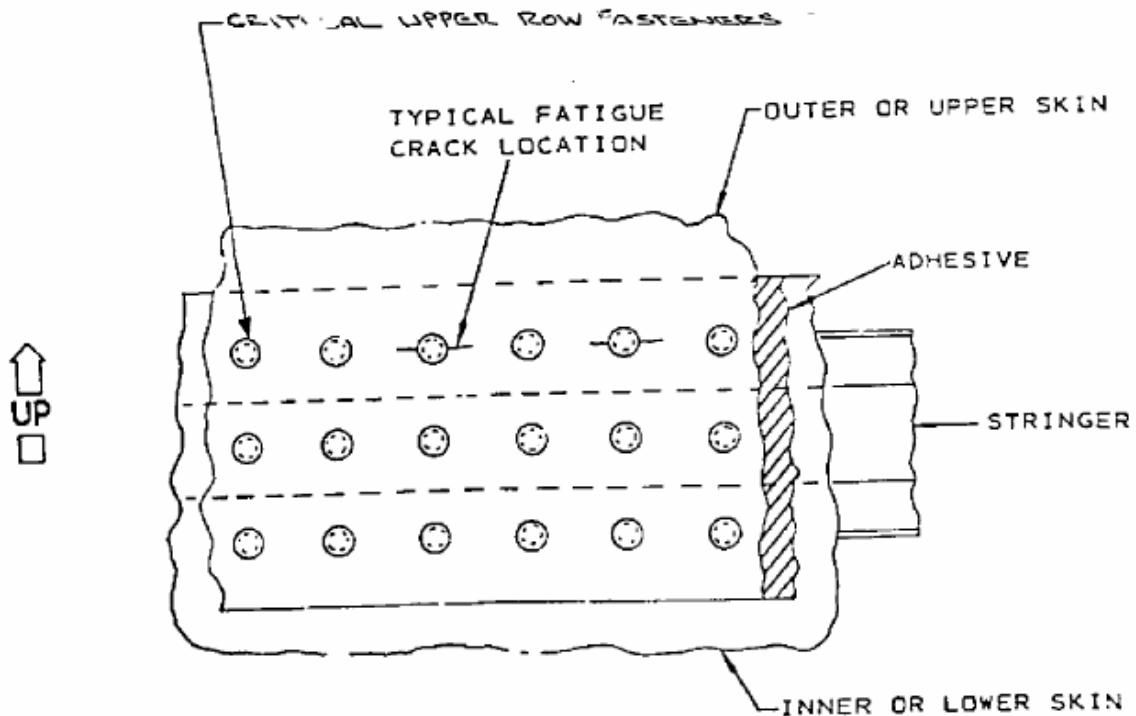


Figure 5. Schematic of typical cracking found in the upper skin, upper row of fasteners of longitudinal lap joints. No cracking was noted by external detailed visual or external HFEC inspections.

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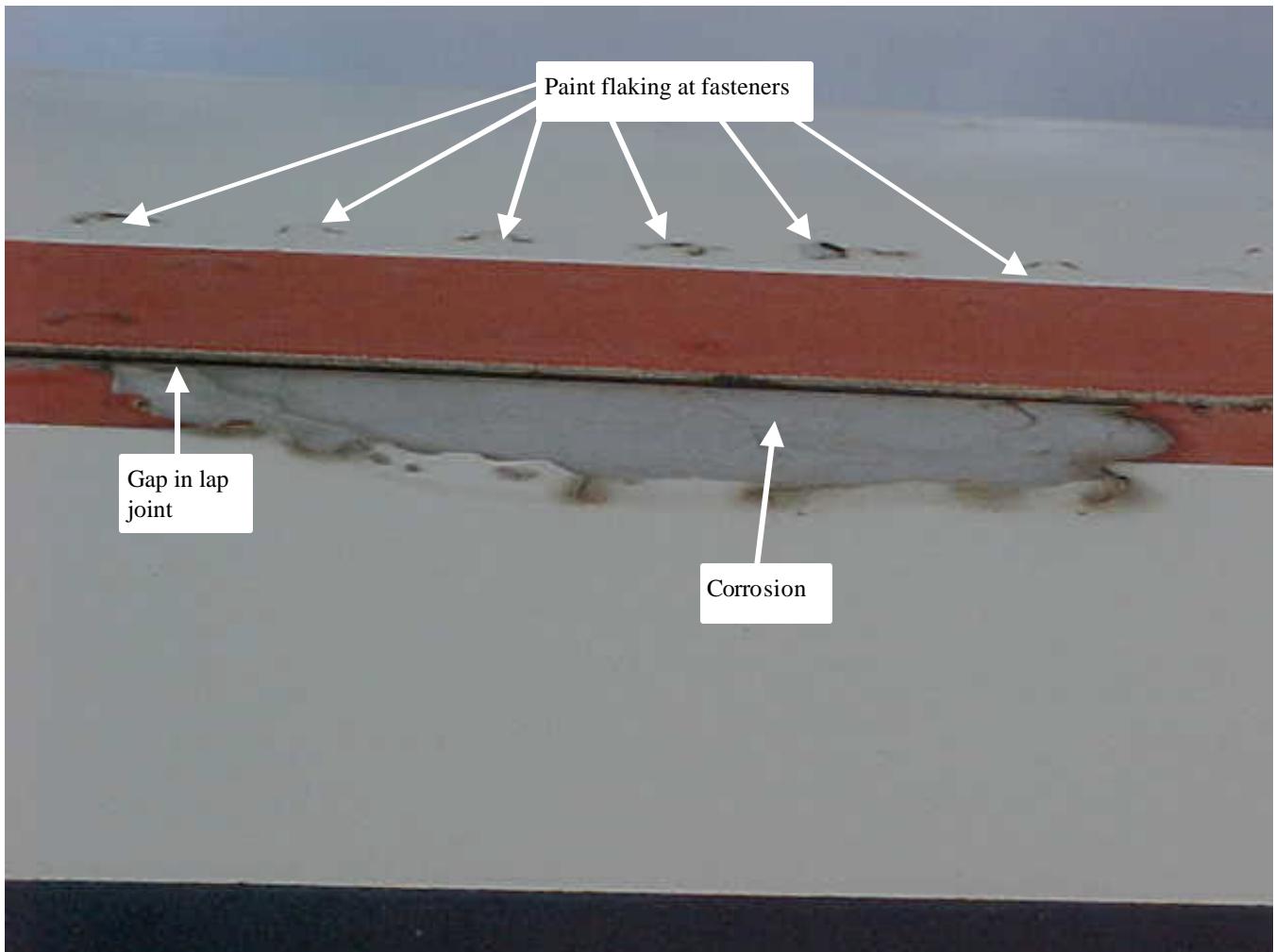


Figure 6a. Photograph of paint flaking, corrosion, and gap in lap joint at stringer 10L, between BS 1120 and BS 1148 found with external detailed visual inspection.

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Figure 6b. Photograph of paint flaking, corrosion, and gap in lap joint at stringer 10L, between BS 1120 and BS 1148 found with external detailed visual inspection.

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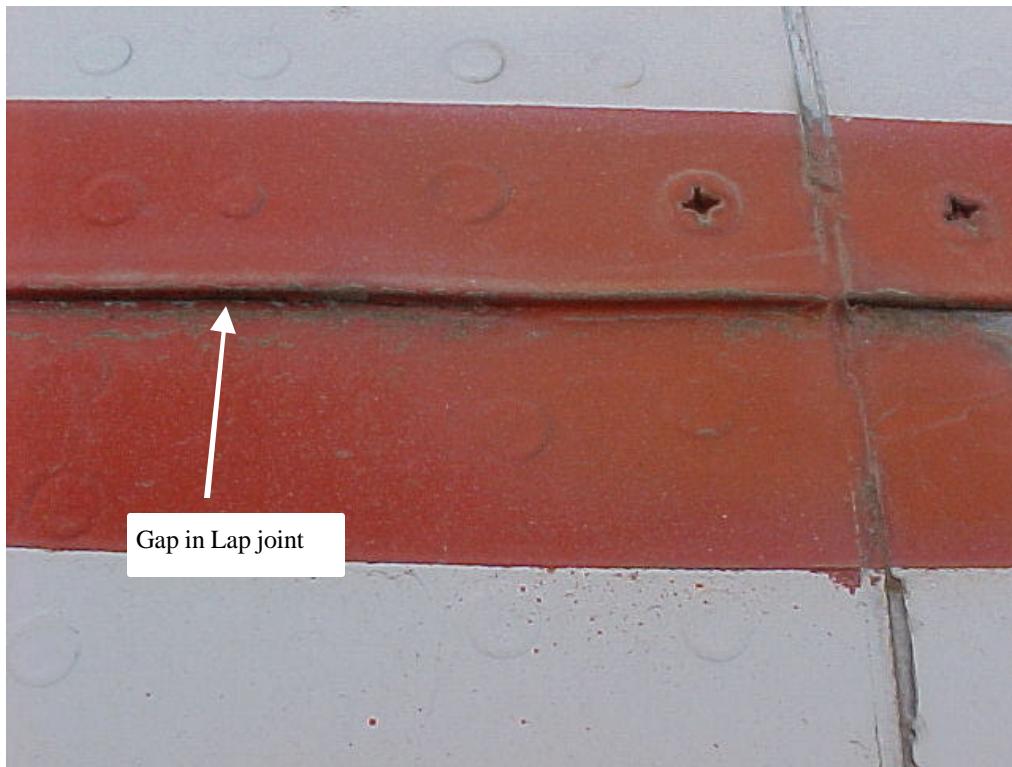


Figure 7a. Photograph of paint flaking, corrosion, and gap in lap joint at stringer 10R, near BS 850 found with external detailed visual inspection.

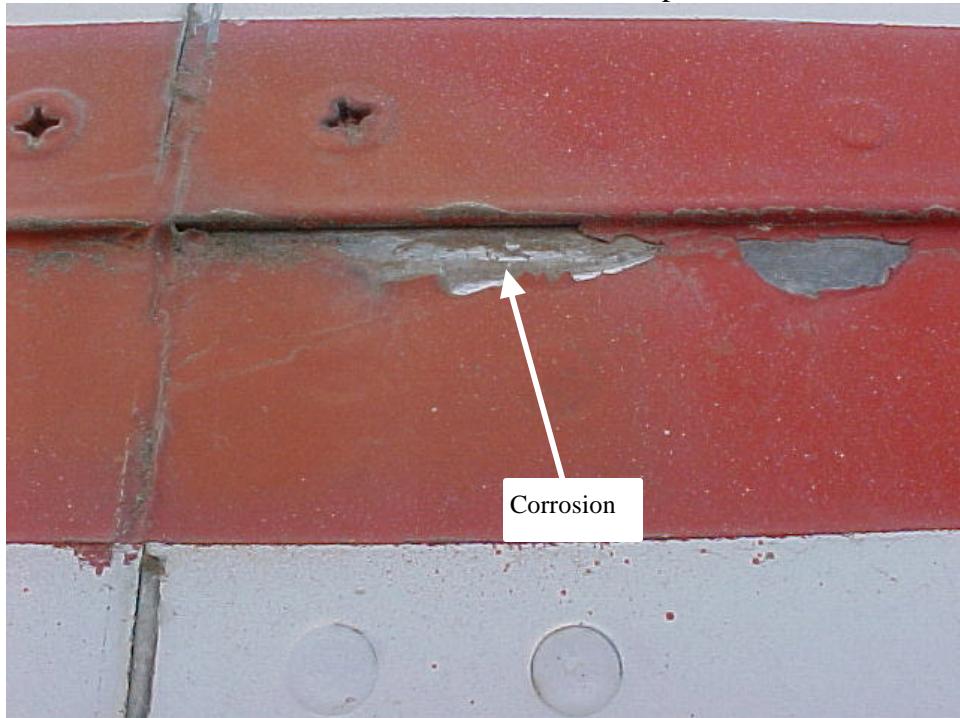


Figure 7b. Photograph of paint flaking, corrosion, and gap in lap joint at stringer 10R, near BS 850 found with external detailed visual inspection

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Figure 7c. Photograph showing close-up of gap in lap joint at stringer 10R, near BS 850 found with external detailed visual inspection.

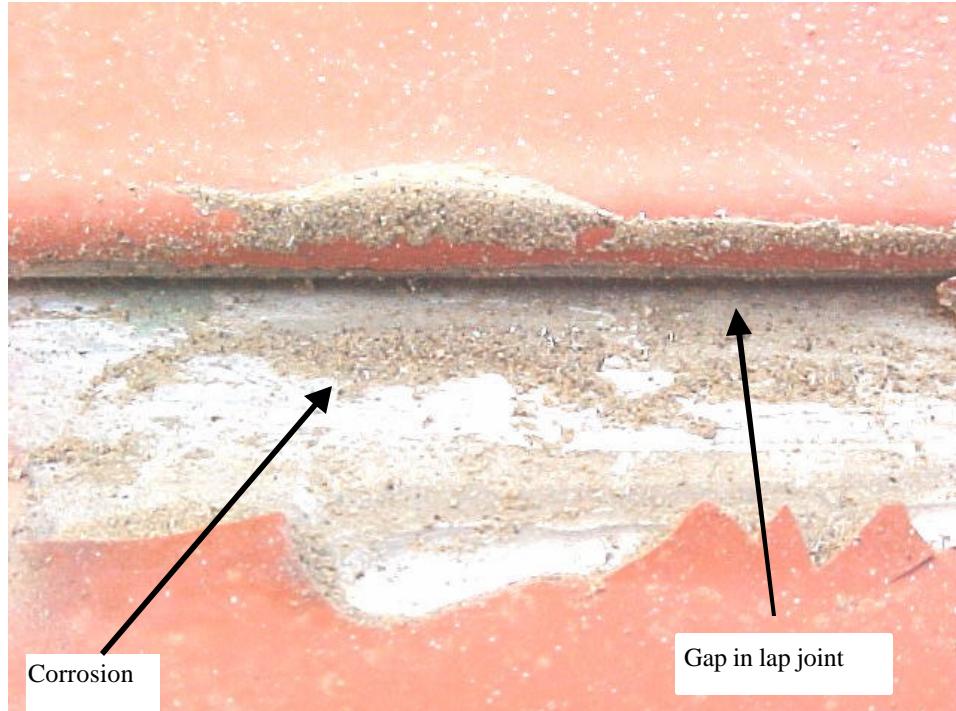


Figure 7d. Photograph showing close-up of paint flaking, corrosion, and gap in lap joint at stringer 10R, near BS 850 found with external detailed visual inspection.

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Figure 8. Photograph of external HFEC being conducted on the upper row of fasteners at stringer 24L.



Figure 9. Photograph of external LFEC being conducted on the lower row of fasteners at stringer 4L.

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OPERATOR: J. Bohler INSTRUMENT SN: DL 50577  
CODE: PROBE SN: 891078  
LOCATION: CAL BLOCK SN: 0399211  
JOB NAME: LFECStr26R  
TEST COMMENTS: indication at sta 660+3 str 26R

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump 20 : 02 06 Nov '02

Probe	PR	Standard	Mode	MO	Refl	1Ch
Display	DI	XY	View	VW		Ch1
Ch1 Freq	1F	8.0kHz	Ch2 Freq	2F	60kHz	
Ch1 Gain	1G	47.0dB	Ch2 Gain	2G	40.0dB	
Ch1 Phase	1P	301.0°	Ch2 Phase	2P	0.0°	
Ch1 X:Y	1R	0.0dB	Ch2 X:Y	2R	0.0dB	
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB	
Hi-pass	HP	DC	Lo-pass	LP	100 Hz	
X-pos 1	1H	85	X-pos 2	2H	0	
Y-pos 1	1V	-30	Y-pos 2	2V	0	
Alarm Shape	AT	Off	Apply to	AA	Both	
Alarm Stretch	AS	1s	Alarm action	AF Run	Silent	
Top	TA	-14	Left	LA	Off	
Right	RA	Off	Bottom	BA	Off	
Inner	IA	20	Outer	OA	Off	
Start	SA	9.0°	End	EA	315.0°	
Analogue 1 Out	A1	Off	Analogue 2 Out	A2		Off
Persist	PE	2sec	Sweep	SD	1sec	
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V	
Inp. Gain	IP	+20dB	Bal. Load	LO	---	
Graticule	GR	Rect.A				

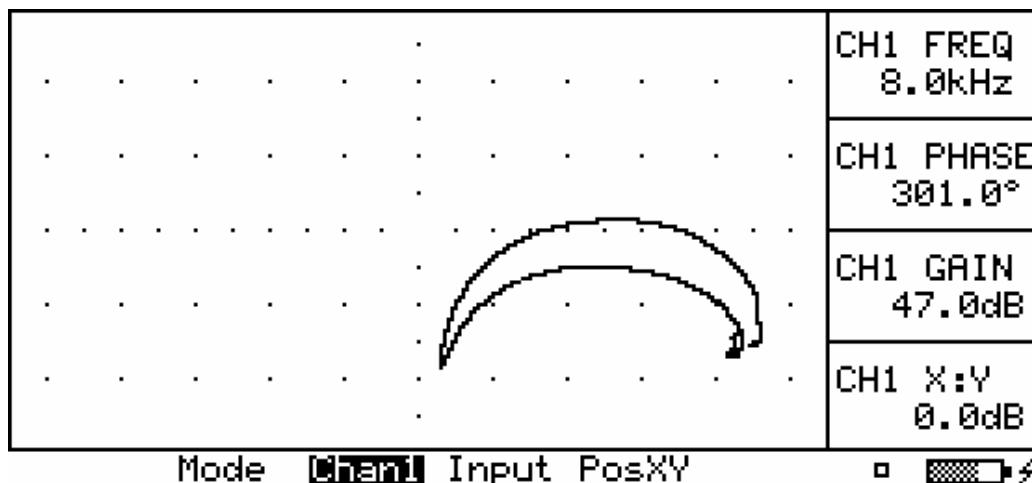


Figure 10. Screen representation of an indication found with external LFEC sliding probe at stringer 26R, BS 660, 3rd rivet location. Indication is not rejectable, although it was determined to be a likely oblong hole with Rivetcheck.

OPERATOR: J. Bohler INSTRUMENT SN: DL50577

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CODE: PROBE SN: 891078  
 LOCATION: Str 26R CAL BLOCK SN: 039921  
 JOB NAME:  
 TEST COMMENTS: Crack indication at Str 26R Sta 1050+5

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	01 : 42	08	Nov	'02	
Probe	PR	Standard	Mode	MO	Abs 1Ch
Display	DI	XY	View	VW	Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	200 Hz
X-pos 1	1H	65	X-pos 2	2H	0
Y-pos 1	1V	-35	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone
Top	TA	-14	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	20	Outer	OA	Off
Start	SA	9.0°	End	EA	315.0°
Analogue 1 Out	A1	Off	Analogue 2 Out	A2	Off
Persist	PE	1sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.A			

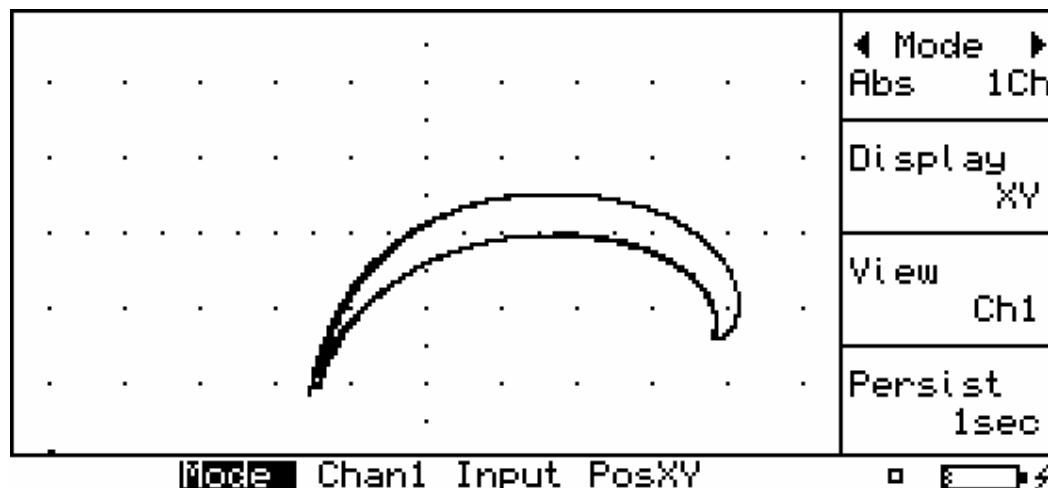
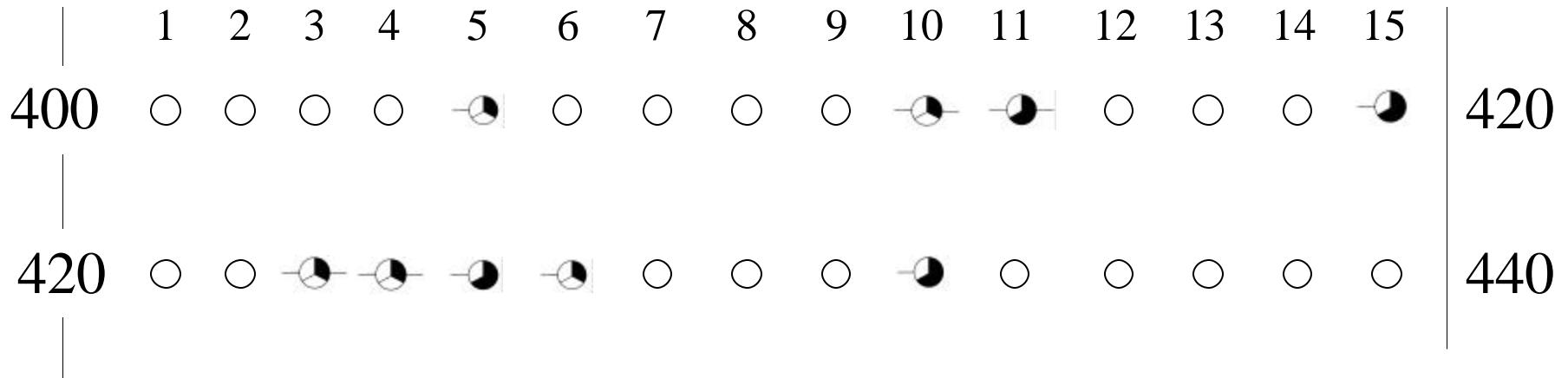


Figure 11. Screen representation of an indication found with external LFEC sliding probe at stringer 26R, BS 1050, 5<sup>th</sup> rivet location. Indication is not rejectable, although it was also detected with Rivetcheck.

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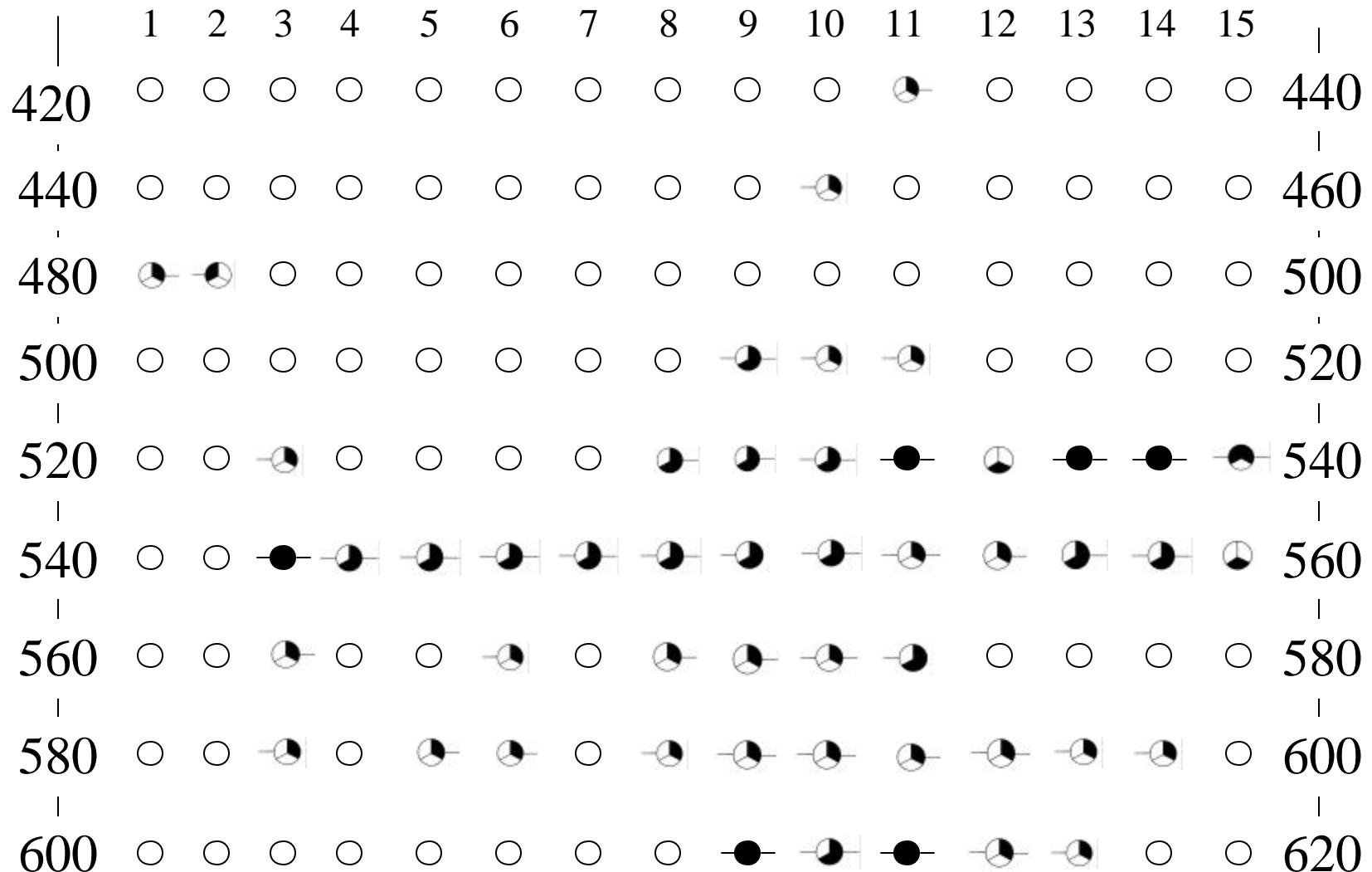


- 
- MFEC only
  - LFEC only
  - MFEC, DVI only
  - DVI only (false call)
  - MFEC, LFEC, and DVI
  - MFEC, LFEC only

Figure 12a. Schematic of indications found on the lower row of fasteners at stringer 4L.

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Key:

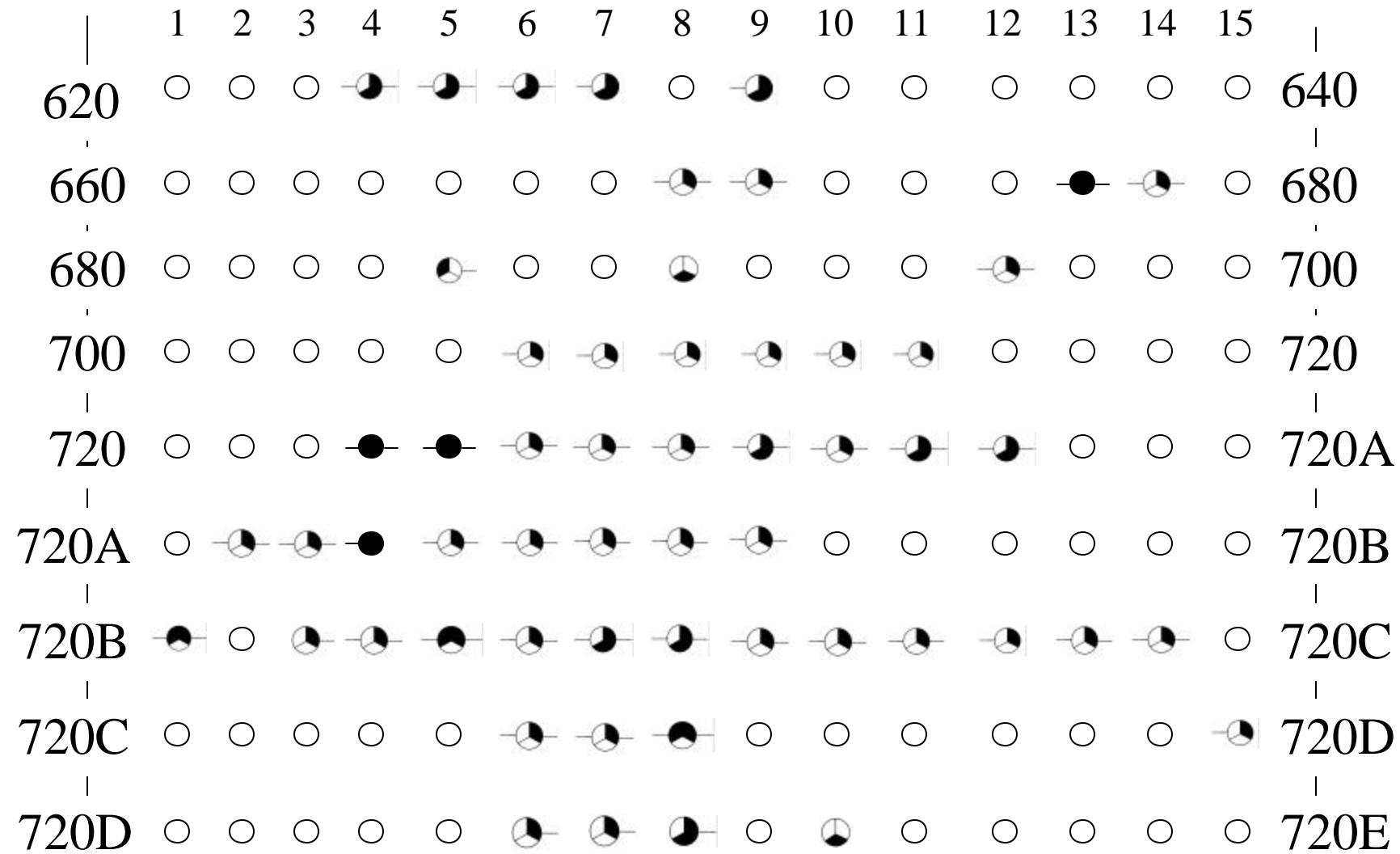
- MFEC only
- MFEC, DVI only
- MFEC, LFEC, and DVI
- LFEC only
- DVI only (false call)
- MFEC, LFEC only

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Figure 12b. Schematic of indications found on the lower row of fasteners at stringer 4R.

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Key:

(○)	MFEC only	(●)	MFEC, DVI only	(●)	MFEC, LFEC, and DVI
(○)	LFEC only	(○)	DVI only (false call)	(●)	MFEC, LFEC only

PROPRIETARY DATA - RESTRICTED DISTRIBUTION - CONTROLLED BY TERMS OF FAA AGREEMENT

Figure 12c. Schematic of indications found on the lower row of fasteners at stringer 4R.

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OPERATOR: \_\_\_\_\_  
 CODE: \_\_\_\_\_  
 LOCATION: \_\_\_\_\_  
 JOB NAME: \_\_\_\_\_  
 TEST COMMENTS: LFEC str 4R at sta 520 rivet 14 fwd and aft side

INSTRUMENT SN: \_\_\_\_\_

PROBE SN: \_\_\_\_\_  
CAL BLOCK SN: \_\_\_\_\_

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	09 : 46	14	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Refl 1Ch Ch1
Ch1 Freq	1F	8.0kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	49.0dB	Ch2 Gain	2G	40.0dB
Ch1 Phase	1P	290.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	0.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	65	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	1sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	+20dB	Bal. Load	LO	---
Graticule	GR	Rect.C_			

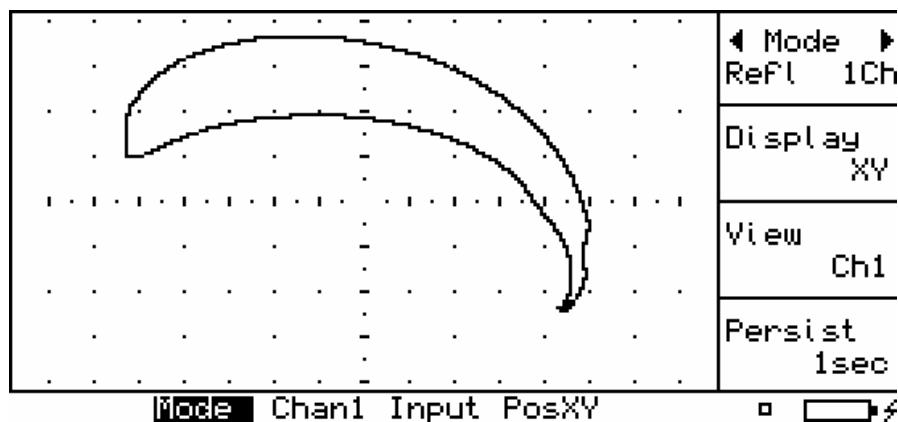


Figure 13. Screen representation of a typical rejectable indication found with external LFEC sliding probe. Location of the indication is at stringer 4R, BS 520, 14<sup>th</sup> rivet location, forward and aft directions.

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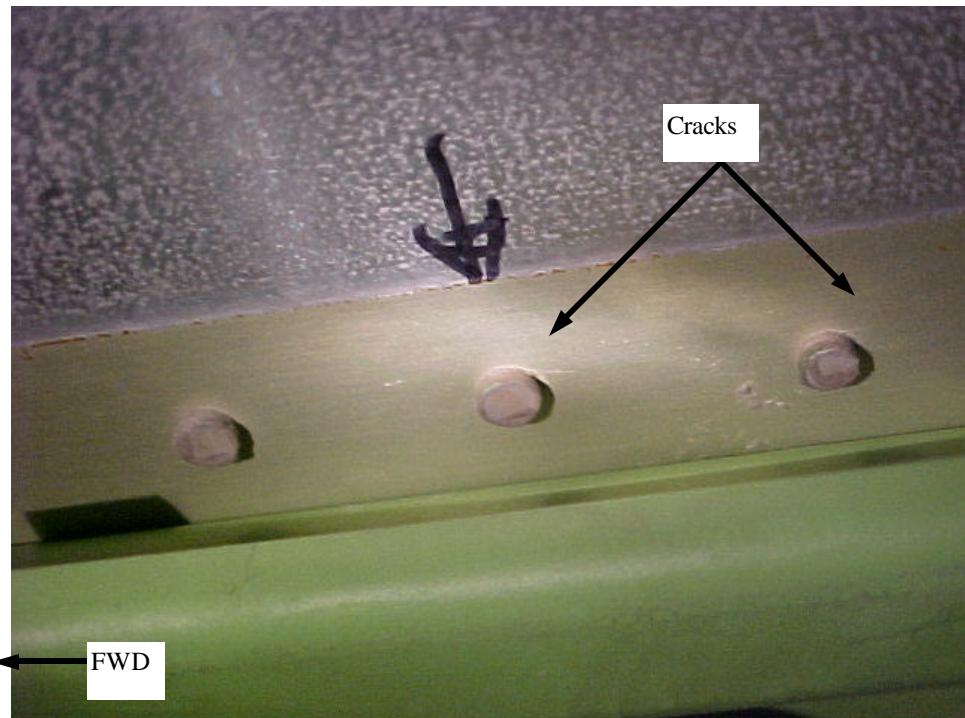


Figure 14. Photograph of cracks found during internal DVI and internal MFEC on the lower row of fasteners at stringer 4R.



Figure 15. Photograph of internal MFEC being conducted on the lower row of fasteners at stringer 4R.

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OPERATOR:

INSTRUMENT SN:

CODE:  
 LOCATION:  
 JOB NAME:  
 TEST COMMENTS: MFEC str 4R at sta 520 rivet 11 fwd side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	13 : 28	14	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs 1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	200 Hz
X-pos 1	1H	65	X-pos 2	2H	0
Y-pos 1	1V	-35	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone
Top	TA	-14	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	20	Outer	OA	Off
Start	SA	9.0°	End	EA	315.0°
Analogue 1 Out	A1	Off	Analogue 2 Out	A2	Off
Persist	PE	0.5sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.A			

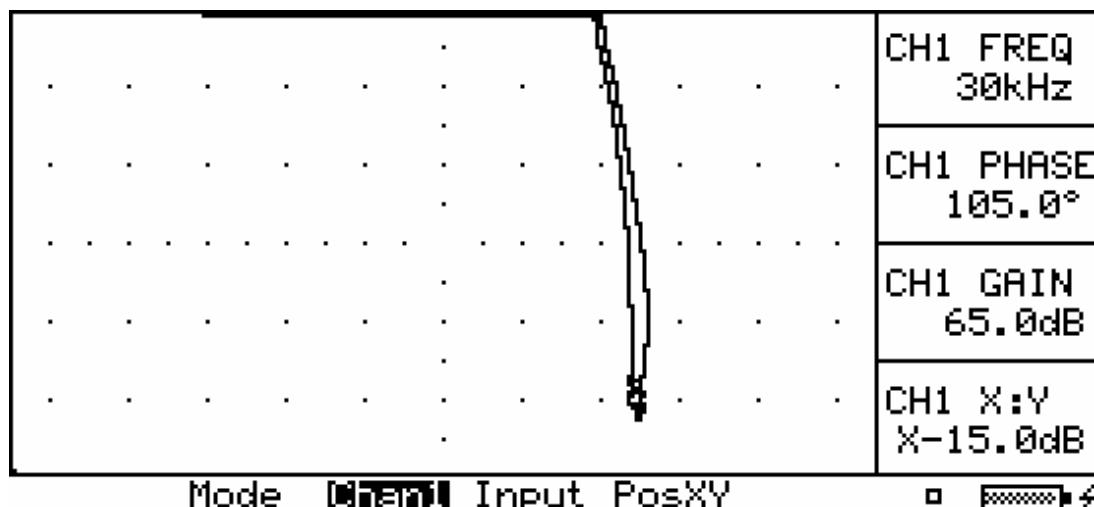


Figure 16. Screen representation of a typical rejectable indication found with internal MFEC. Location of the indication is at stringer 4R, BS 520, 11<sup>th</sup> rivet location, forward direction

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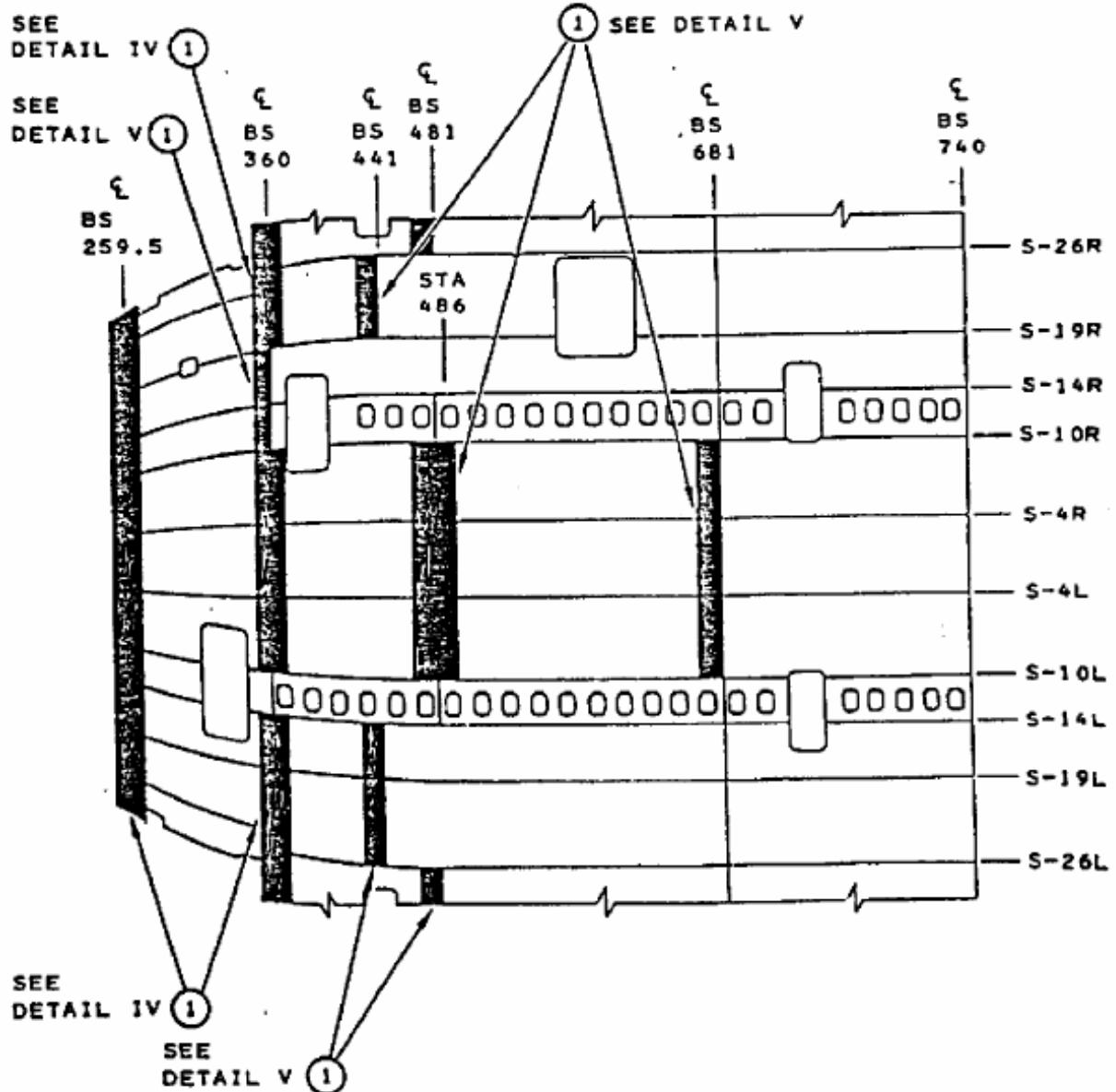
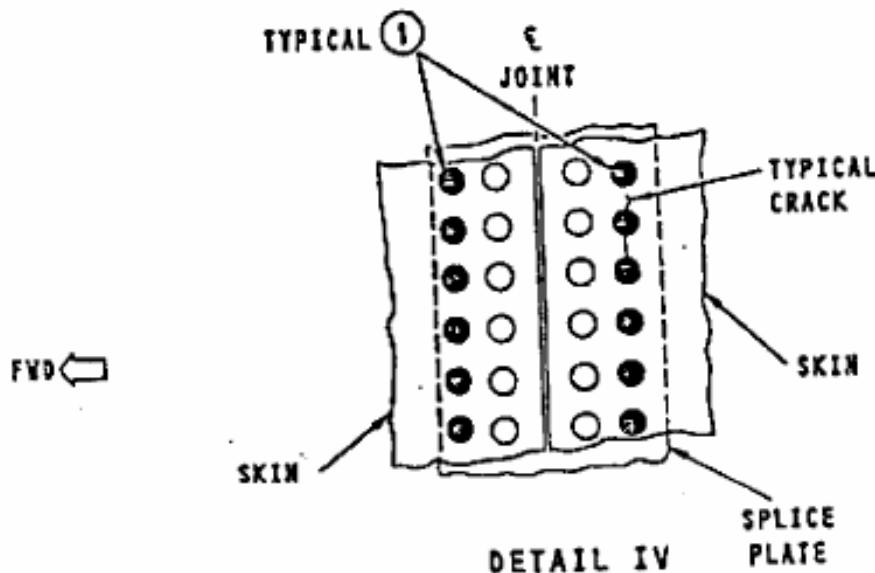
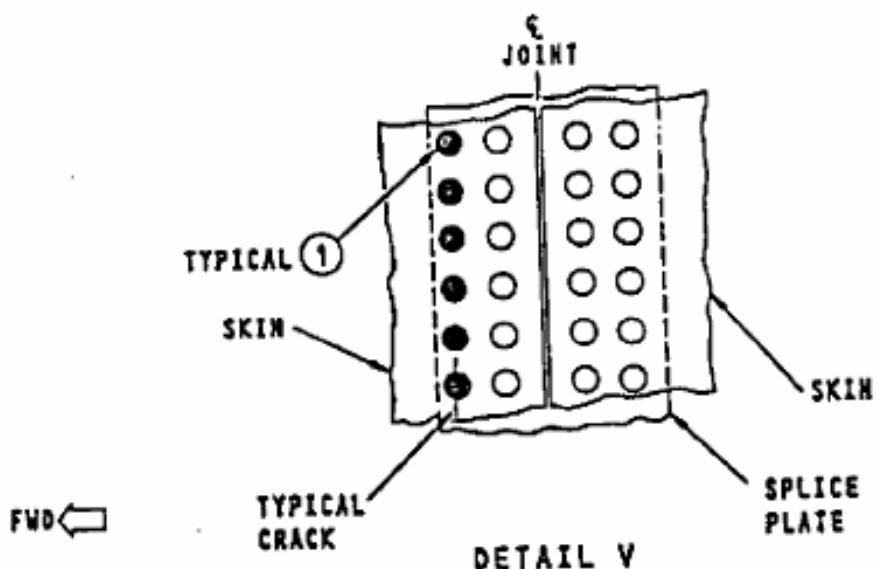


Figure 17. Schematic of locations inspected on circumferential butt joints per Service Bulletin 727-53-0084. The external inspection was not conducted on the crown, and the internal inspection was not conducted on the bilge area.

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FOUR ROWS SHOWN, NUMBER OF ROWS MAY VARY DEPENDANT ON LOCATION



FOUR ROWS SHOWN, NUMBER OF ROWS MAY VARY DEPENDANT ON LOCATION

Figure 18. Schematic of typical cracking in circumferential butt joints.

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Figure 19. Inspector preparing the surface for the ultrasonic tear strap inspection.



Figure 20. Inspector conducting the ultrasonic tear strap inspection.

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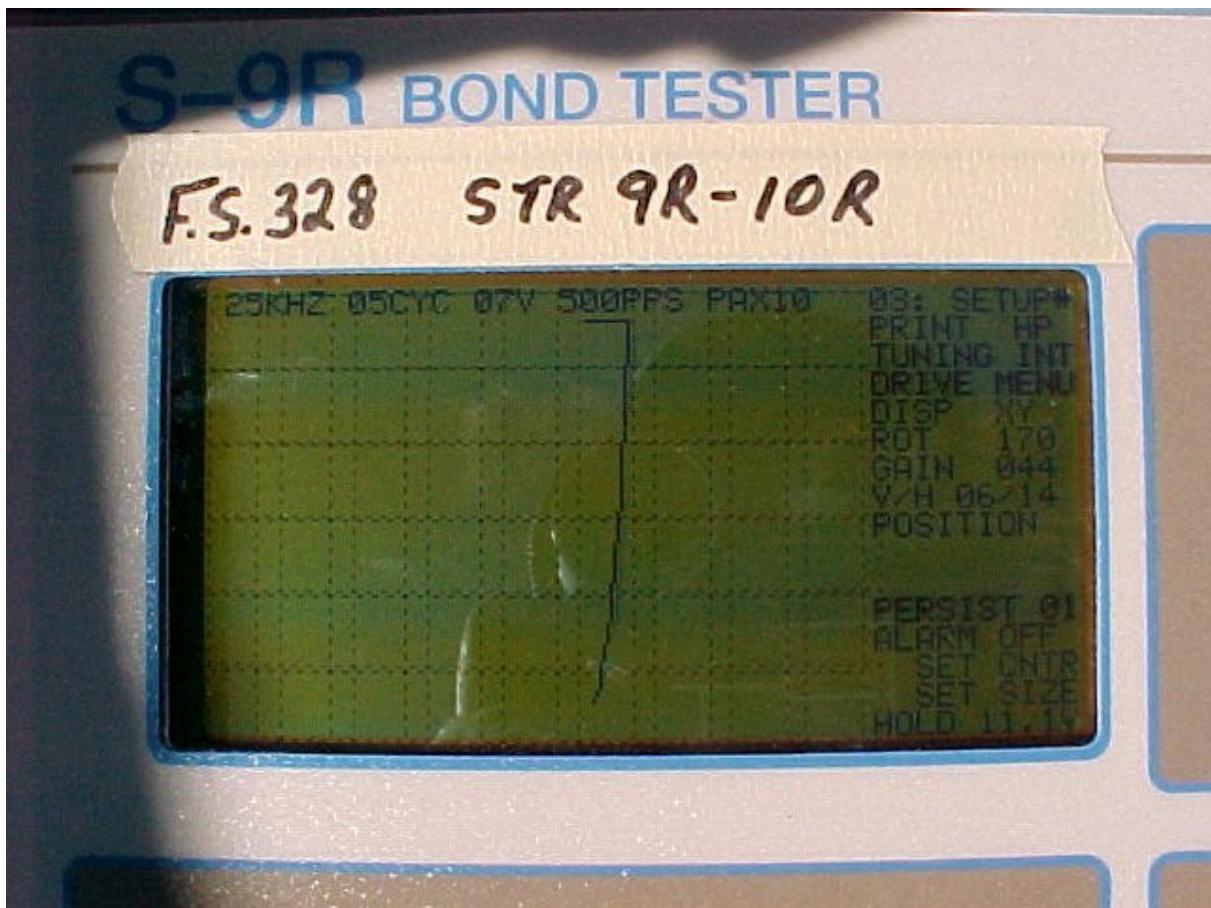


Figure 21. Screen representation of the indication found in the tear strap at FS 328 and stringer 10R. This is a typical indication found during the inspection; additional screen representations can be found in Appendix D.

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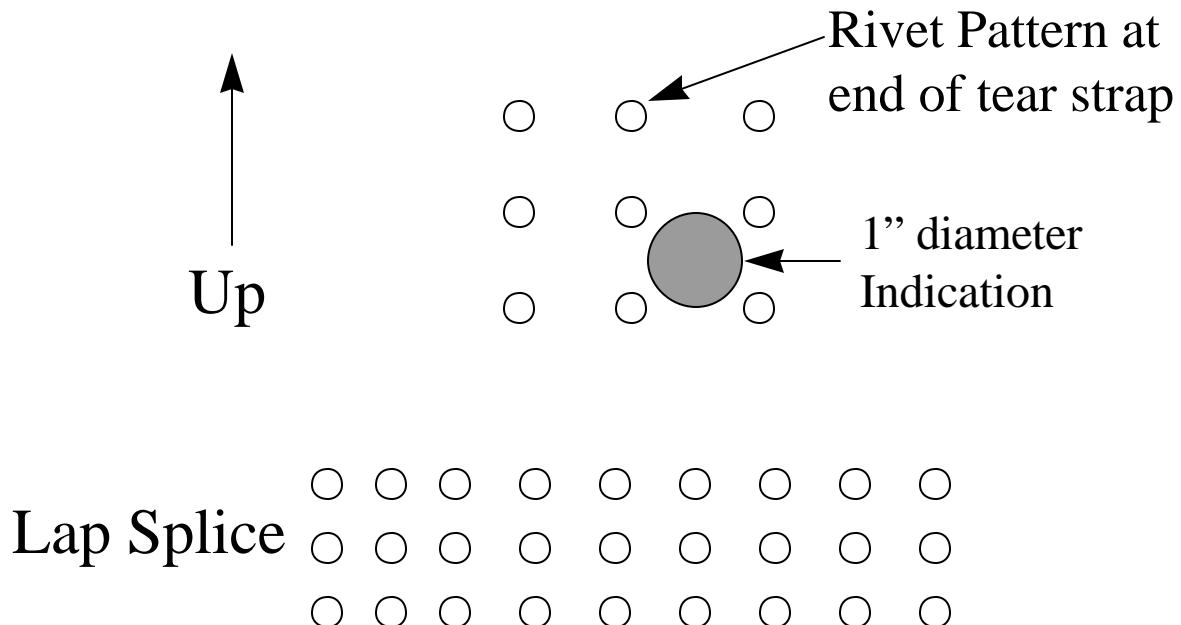


Figure 22. Representative schematic of locations of indications found near stringer 10R. A 1" diameter indication is shown (FS 440, 500, and 560).

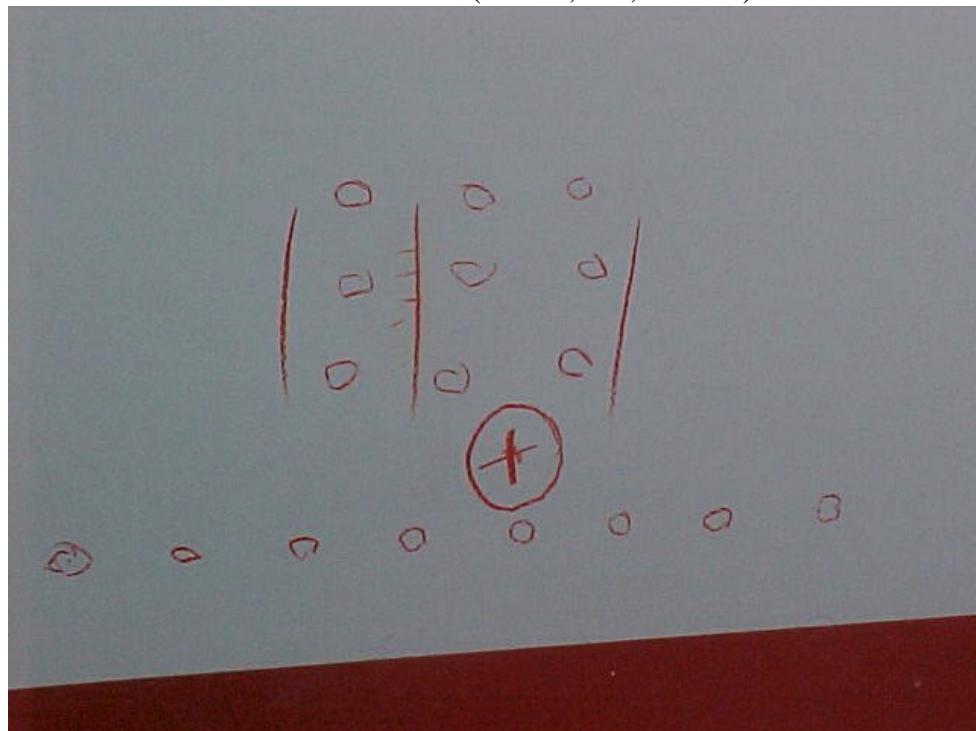


Figure 23. Representative example of the indications found near stringers 10L and 4L during the tear strap debond inspection. Top row of stringer 10L (lap joint) is shown along with 3 x 3 rivet pattern from the tear strap. This indication is possibly a signal from the gap between the skin and tab below the tear strap end instead of a debond (See Figures 24-26).

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Figure 24. Gap between the tab and skin, below the end of the tear strap. Forward side shown.

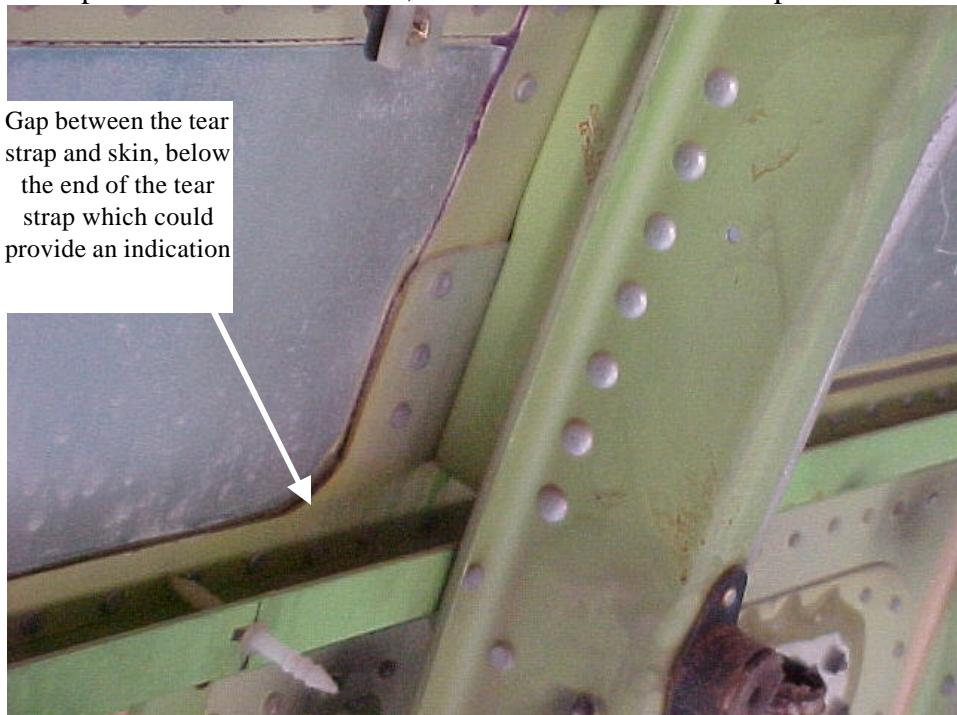


Figure 25. Gap between the tab and skin, below the end of the tear strap. Reverse side shown.

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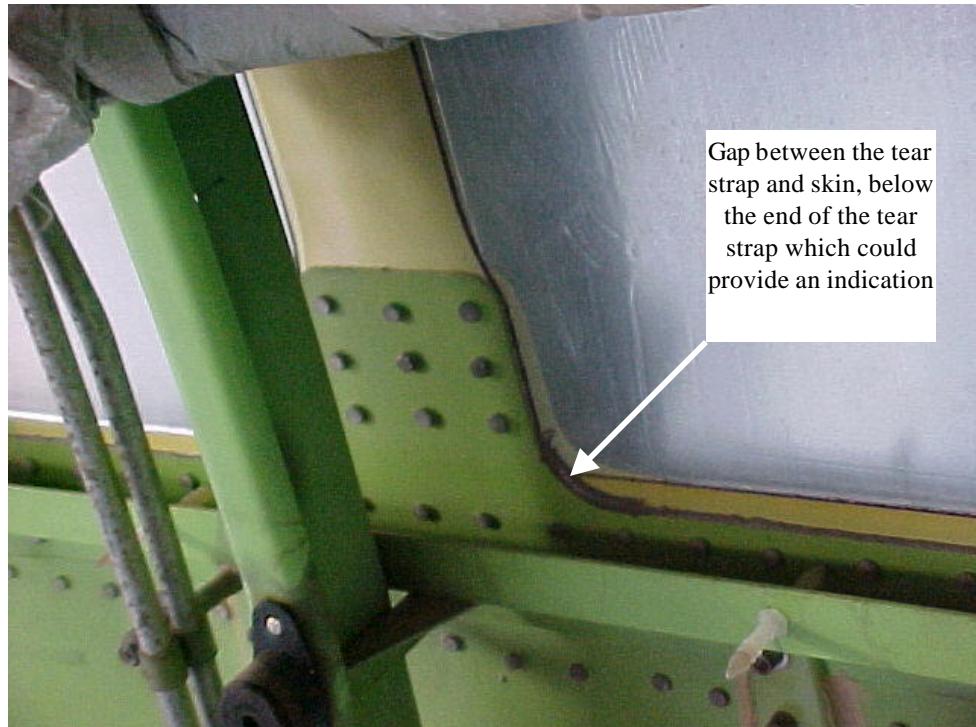


Figure 26. Internal view of the gap between the tab and skin, below the end of the tear strap.

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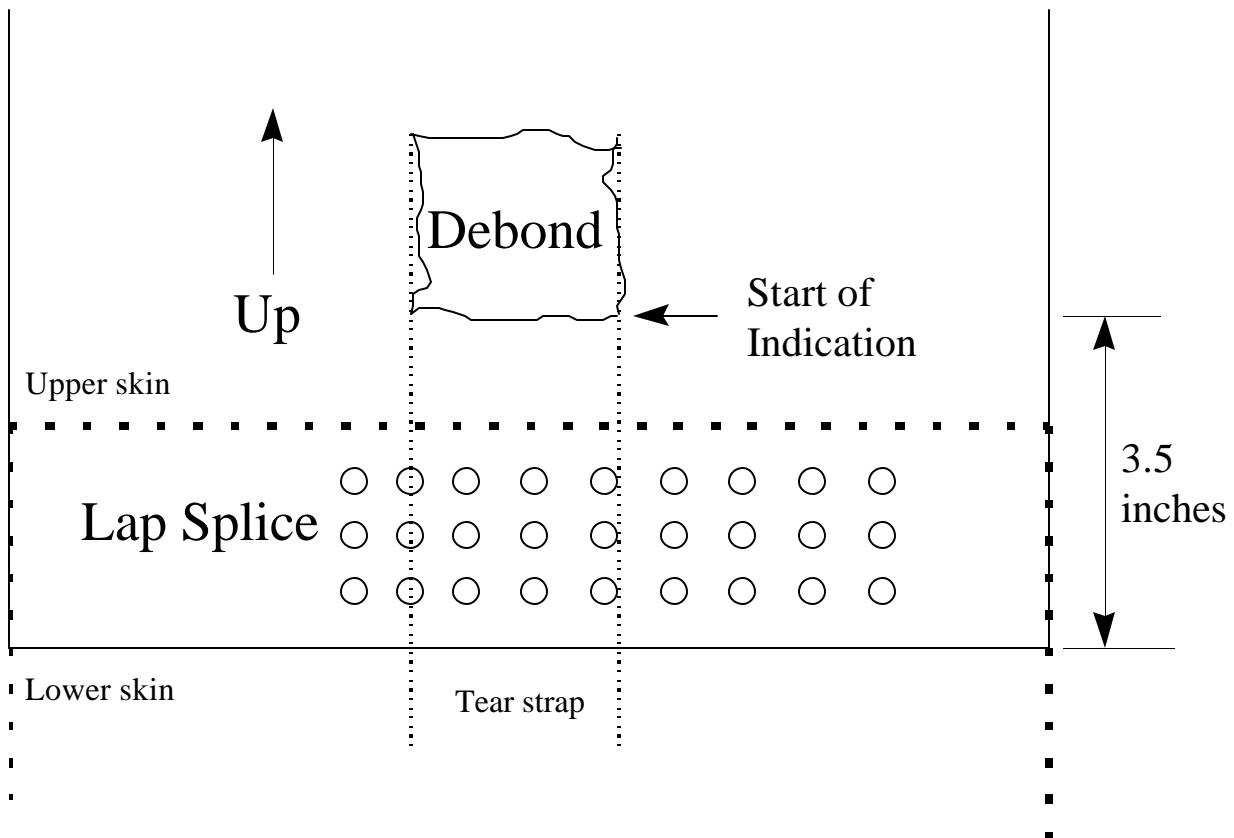


Figure 27. Representative schematic of indications found near stringer 4R. The indications started 3.5" above the edge of the upper skin and varied in length.

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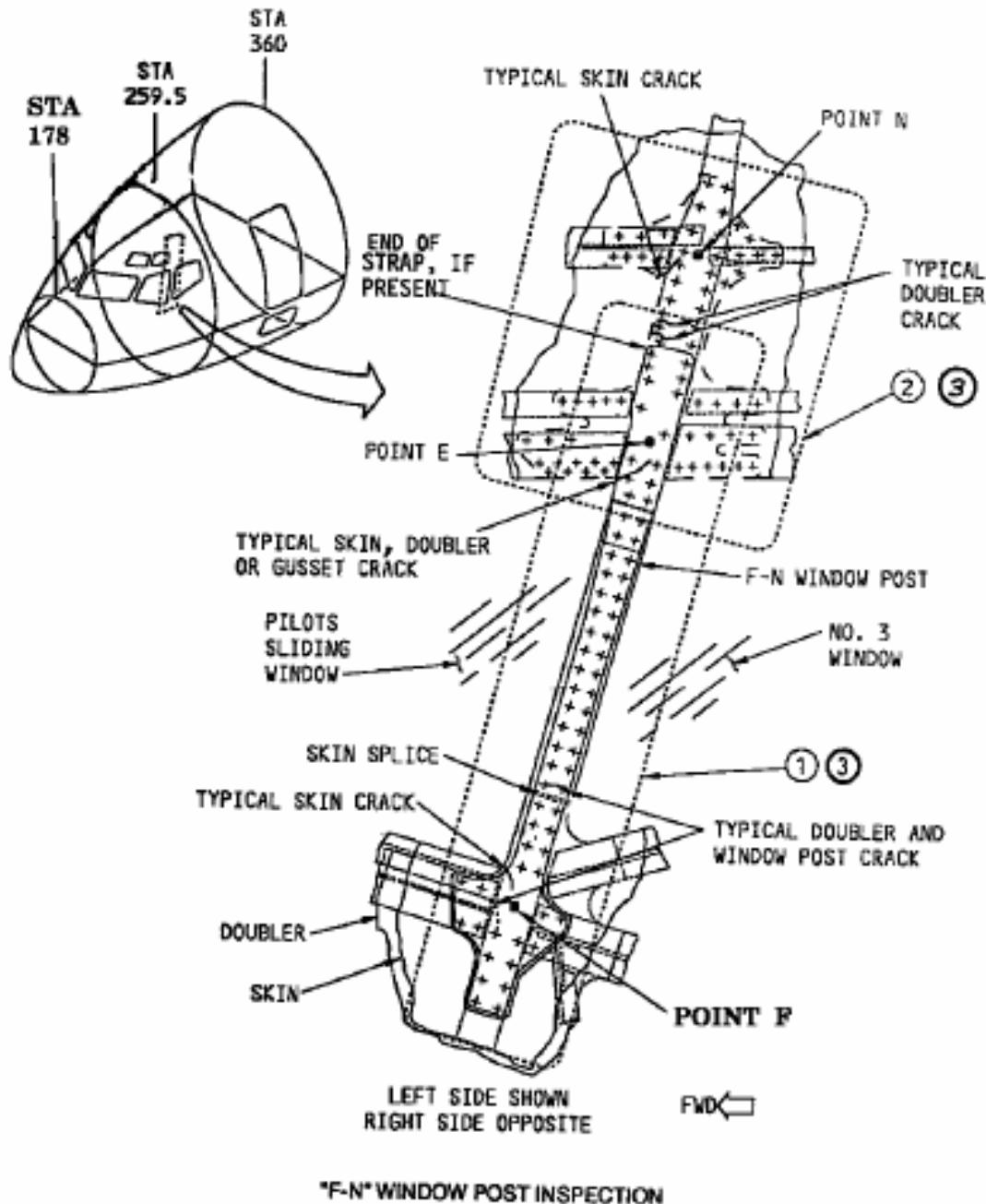


Figure 28. Schematic of cabin window post inspection.

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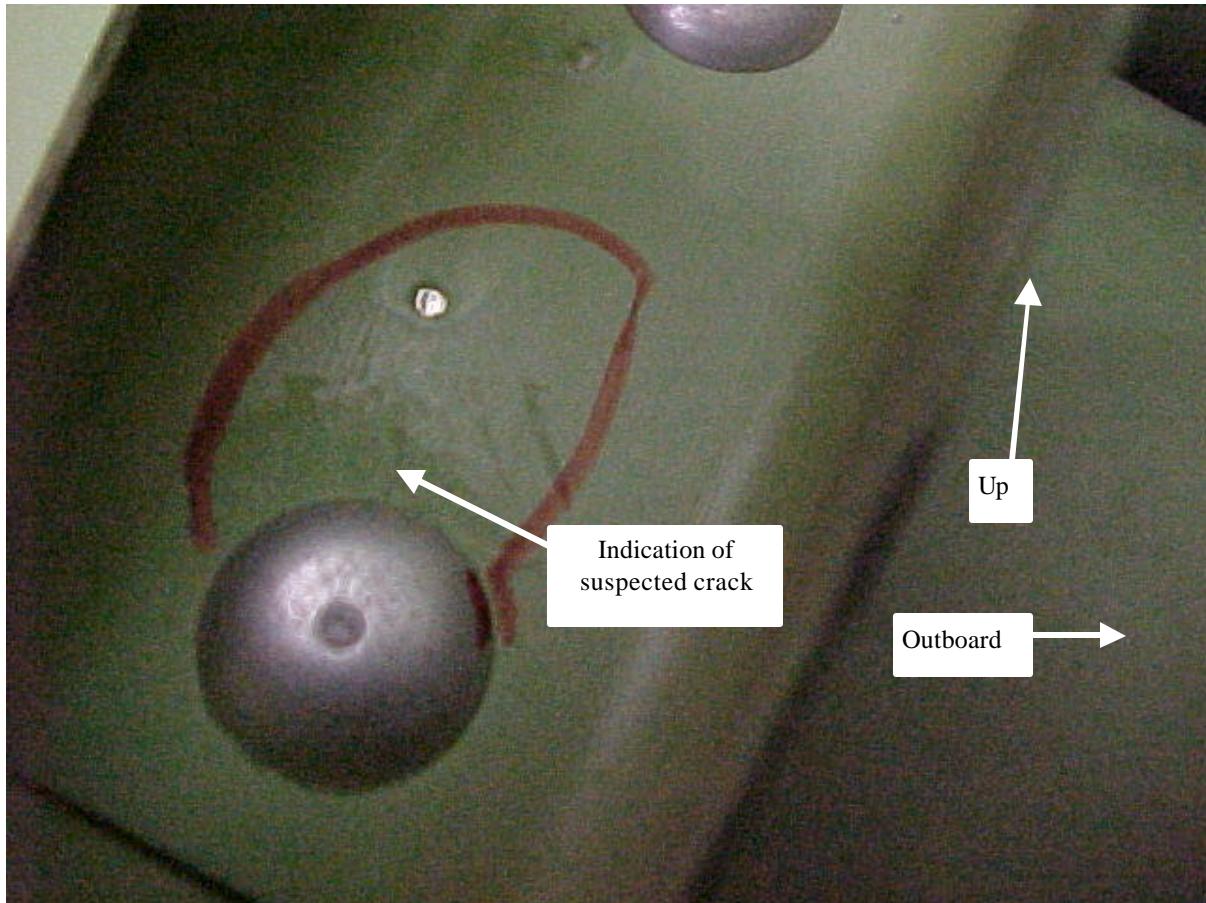


Figure 29. Photograph of stringer clip at FS 660, stringer 4R. Detailed visual inspection discovered an indication.

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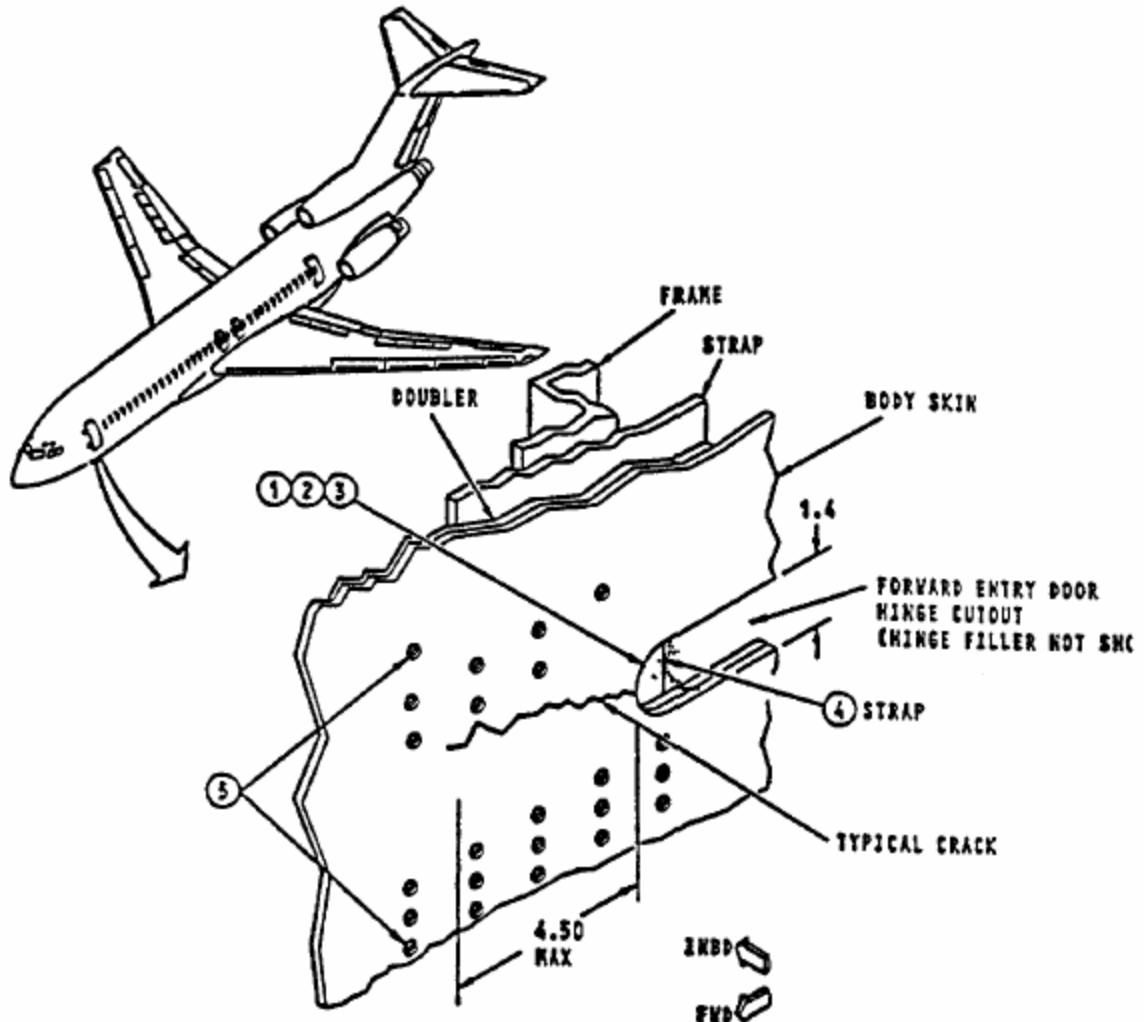


Figure 30a. Schematic of L1 door hinge inspection locations (DVI and HFEC).

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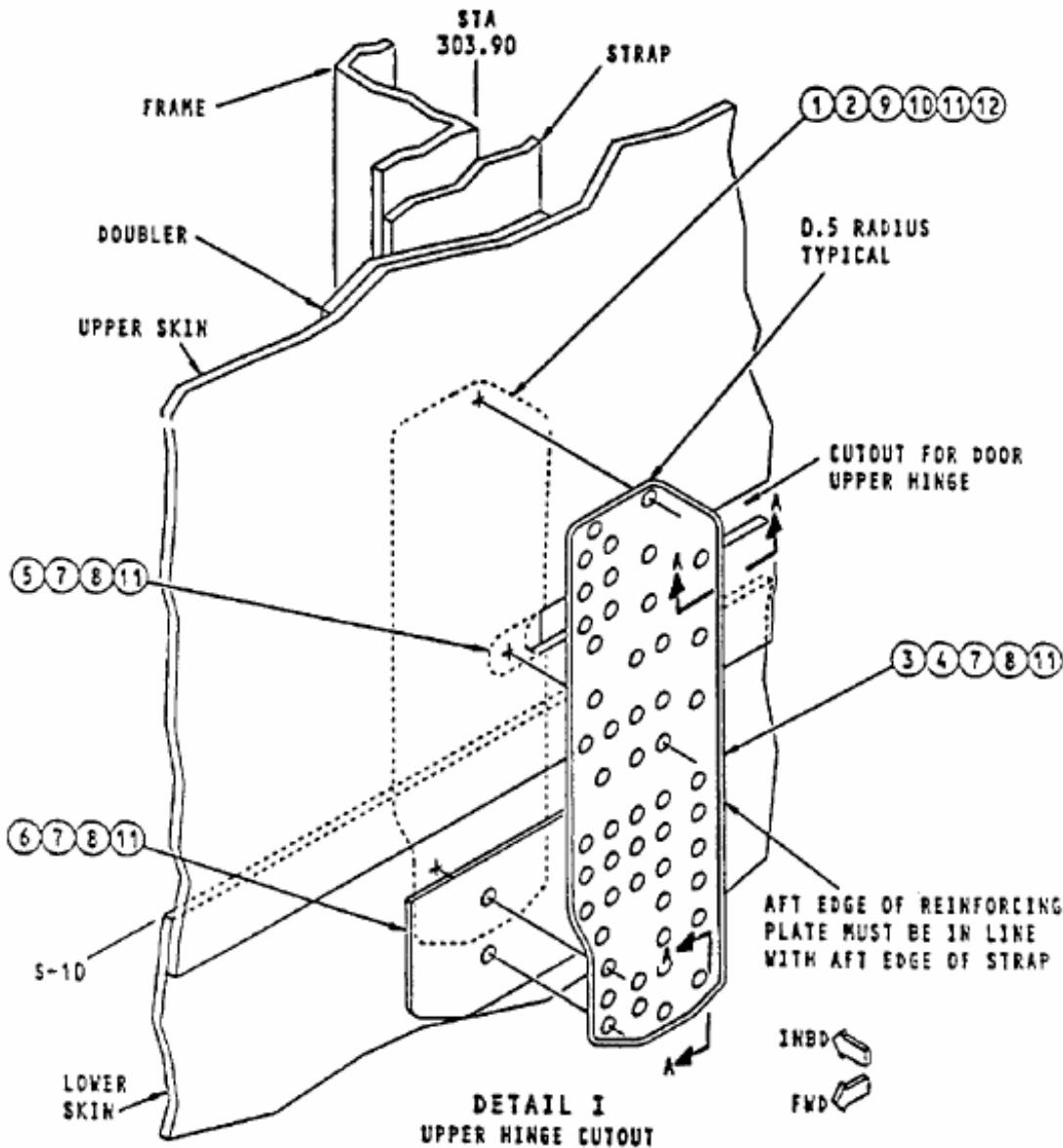


Figure 30b. Schematic of L1 door upper hinge inspection locations (DVI and HFEC).

SHEET	65	NO.	4-086382-20
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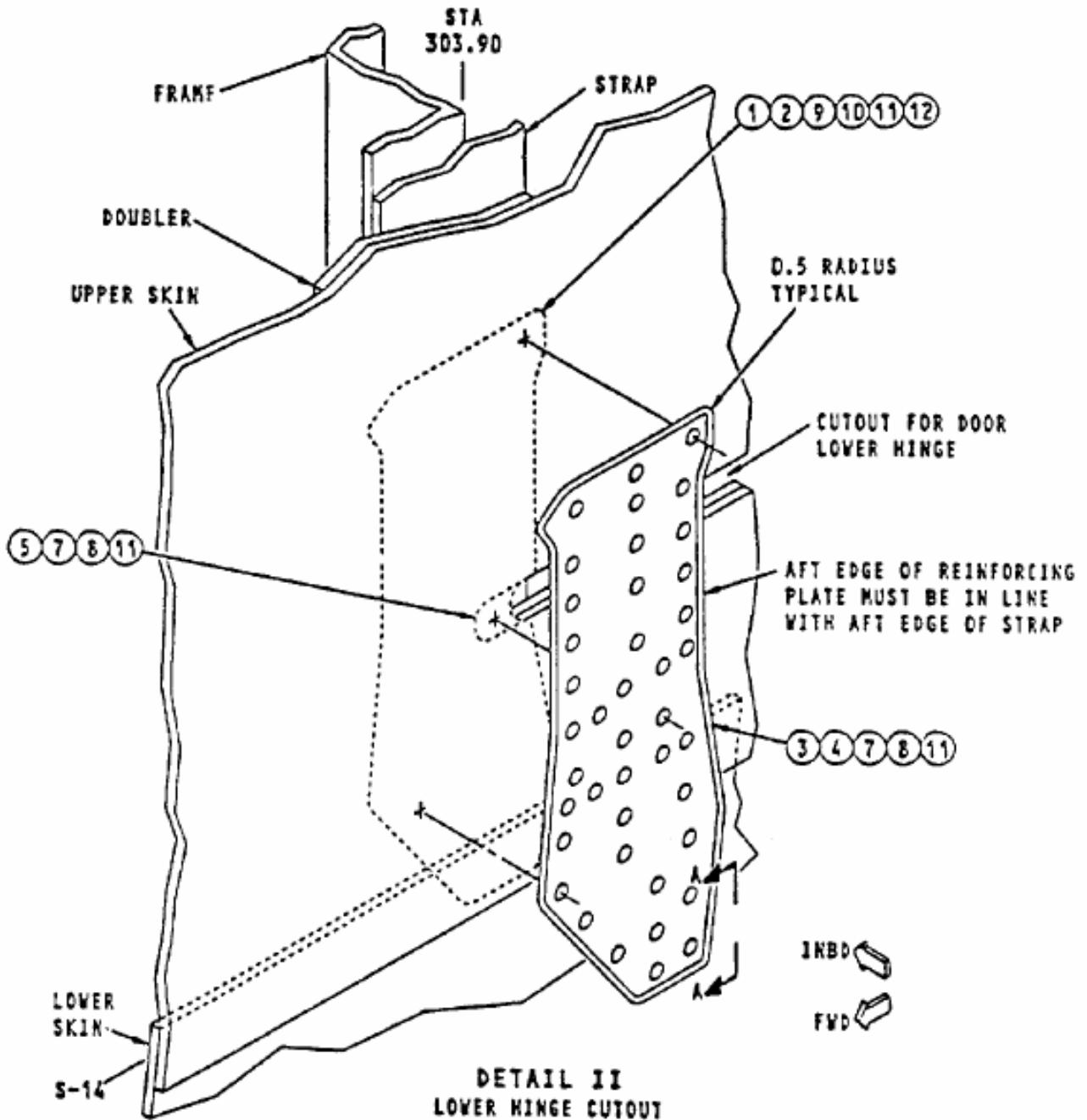


Figure 30c. Schematic of L1 door lower hinge inspection locations (DVI and HFEC).

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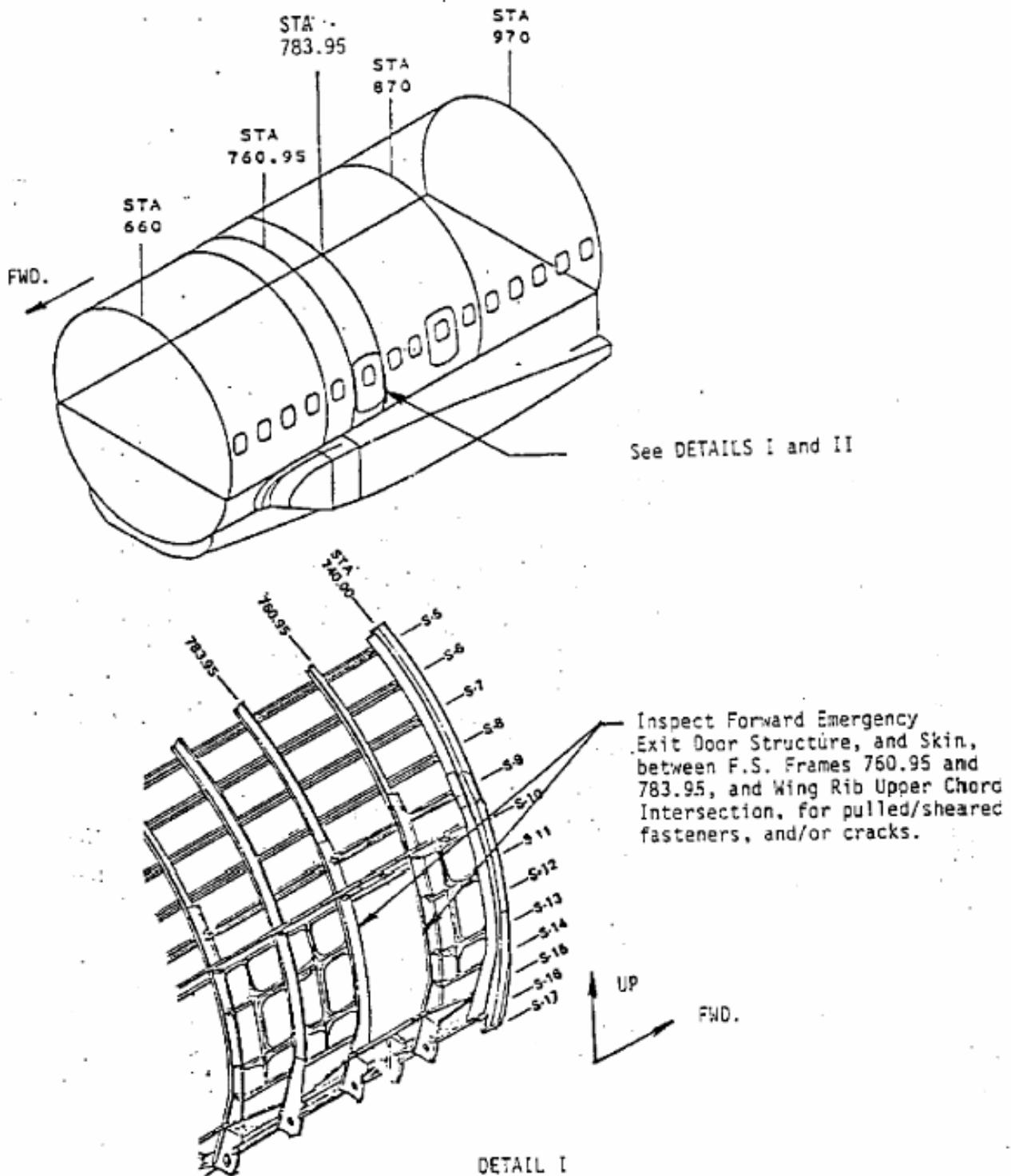


Figure 31. Schematic of overwing emergency exit structure inspection from Service Bulletin 727-53-0186.

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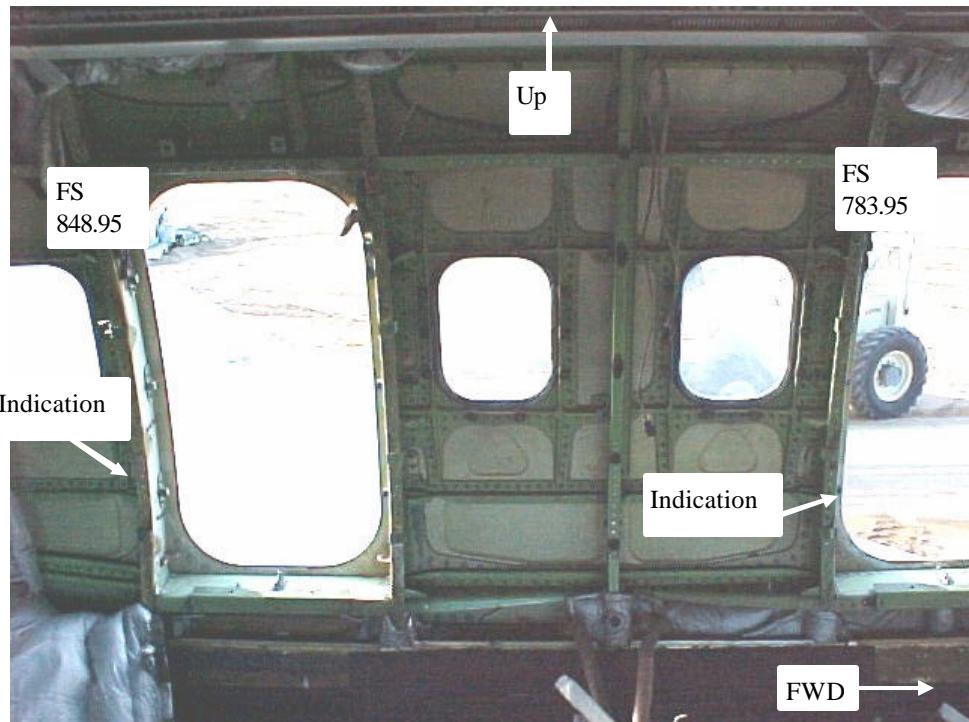


Figure 32. Photograph of left side overwing emergency exit doors. Detailed visual inspection discovered two indications.

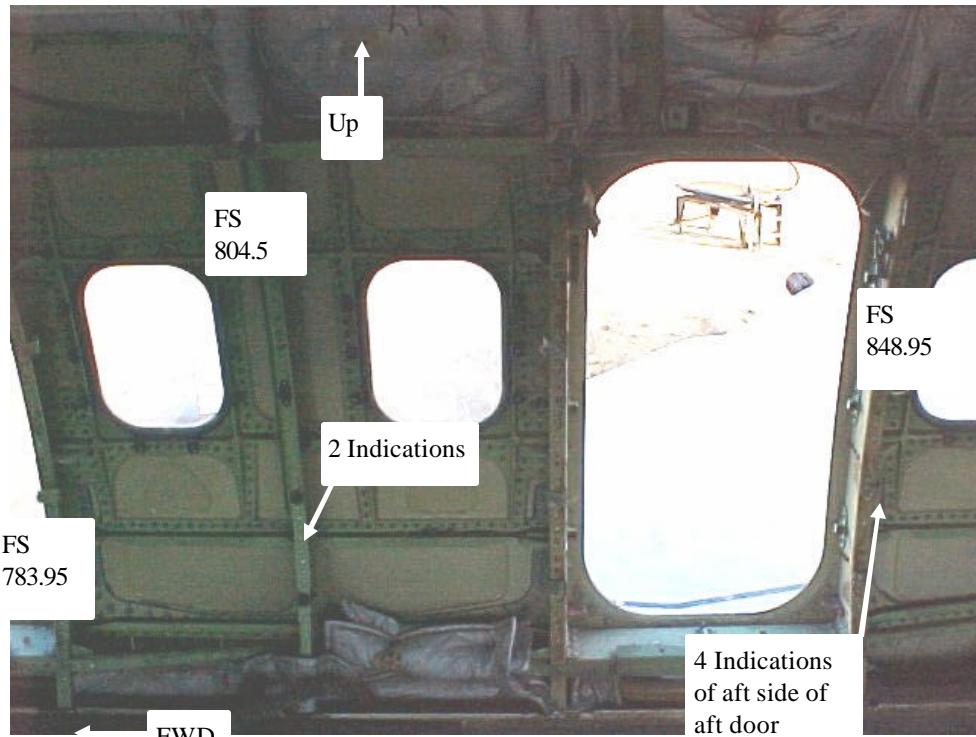


Figure 33. Photograph of right side overwing emergency exit doors. Detailed visual inspection discovered six indications.

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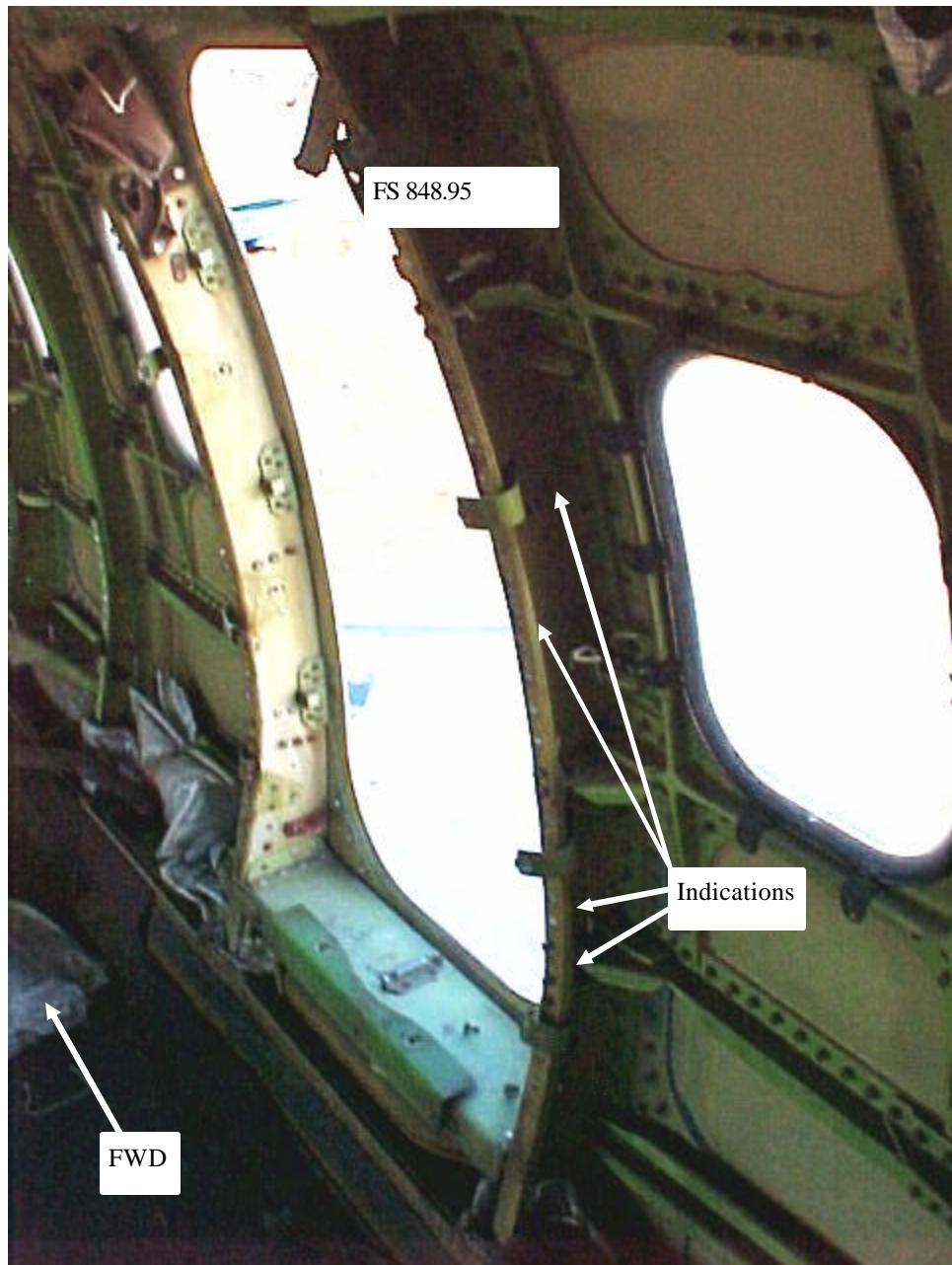


Figure 34. Photograph of right side, aft overwing emergency exit door frame. Detailed visual inspection discovered four indications on the aft side.

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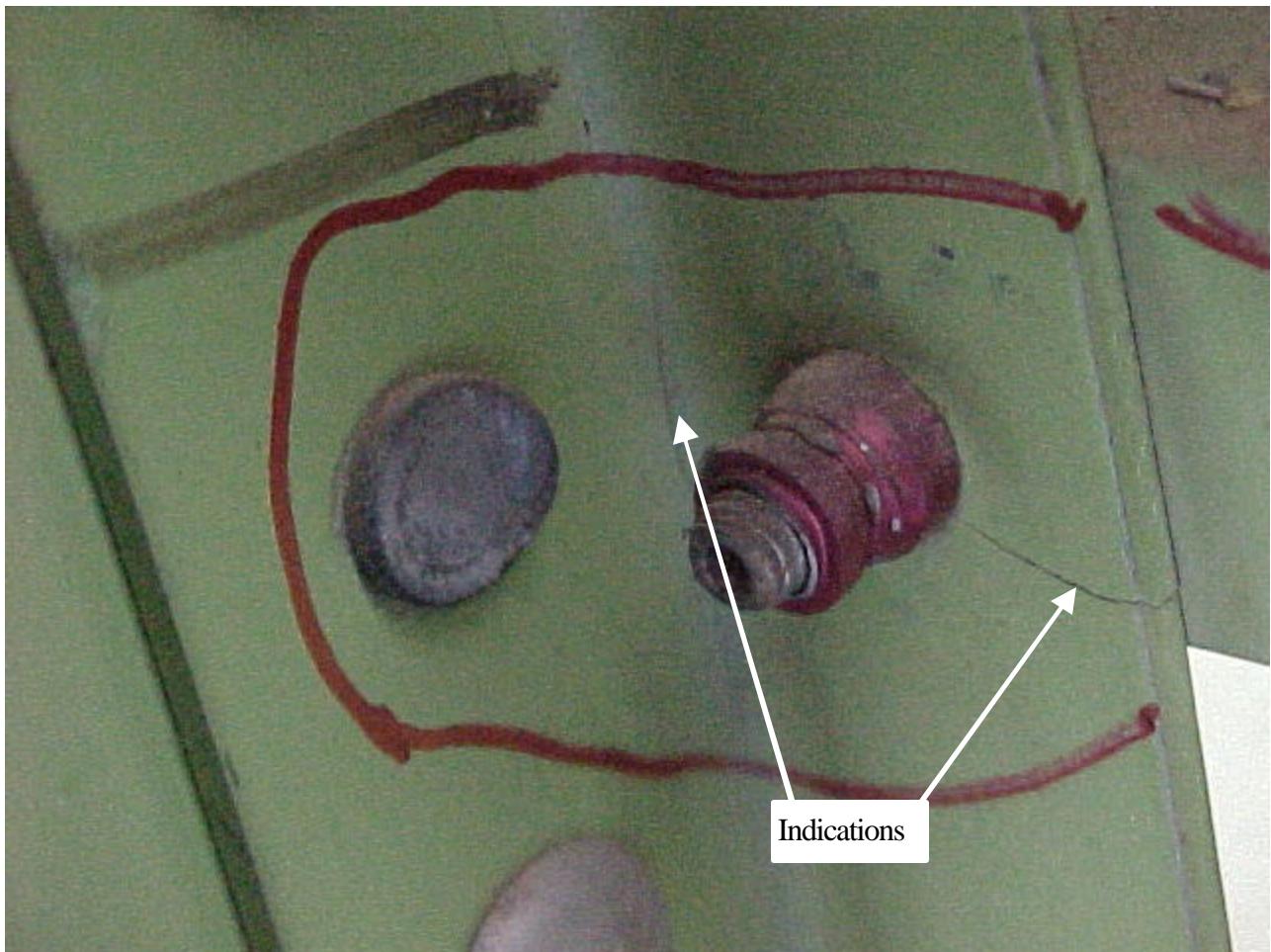


Figure 35. Photograph of two indications (radius and out of hi-lok) at BS 804.5 and stringer 16R (between right side overwing emergency exit doors).

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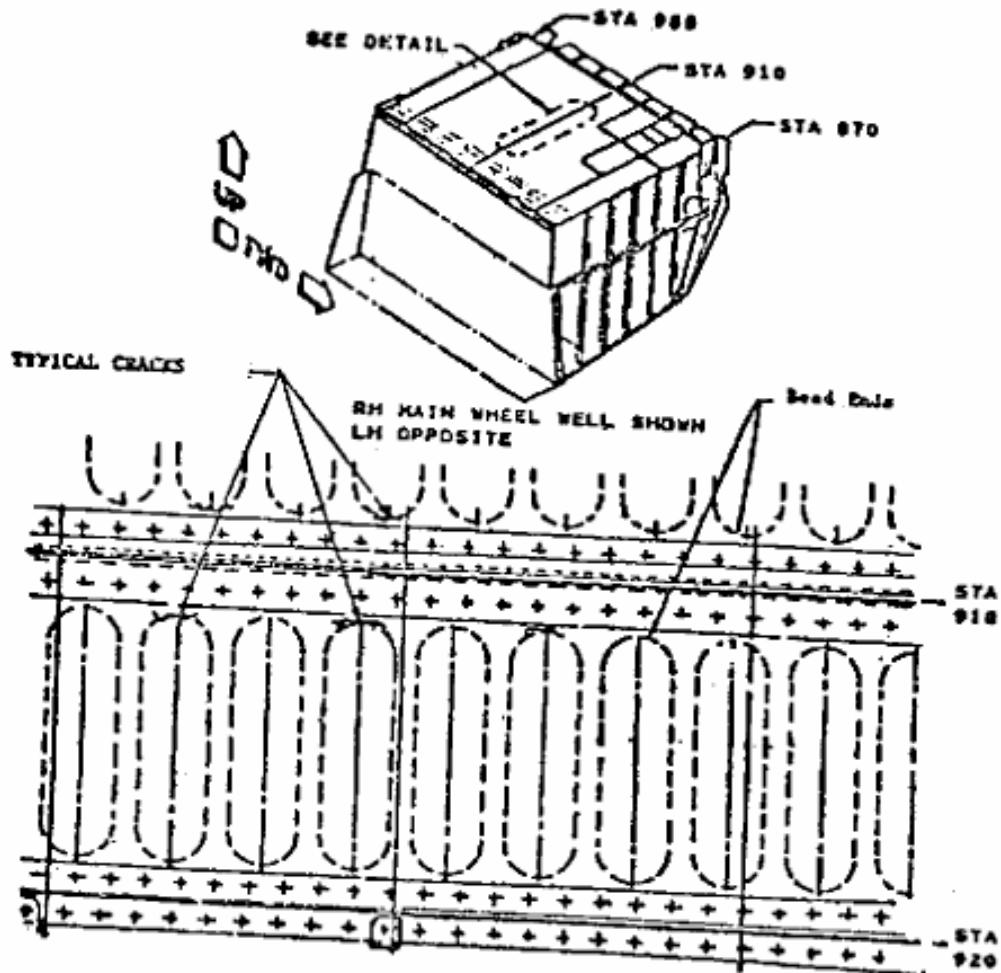


Figure 36. Schematic of wheel well pressure floor inspection locations per Service Bulletin 727-53-0149 (DVI and HFEC).

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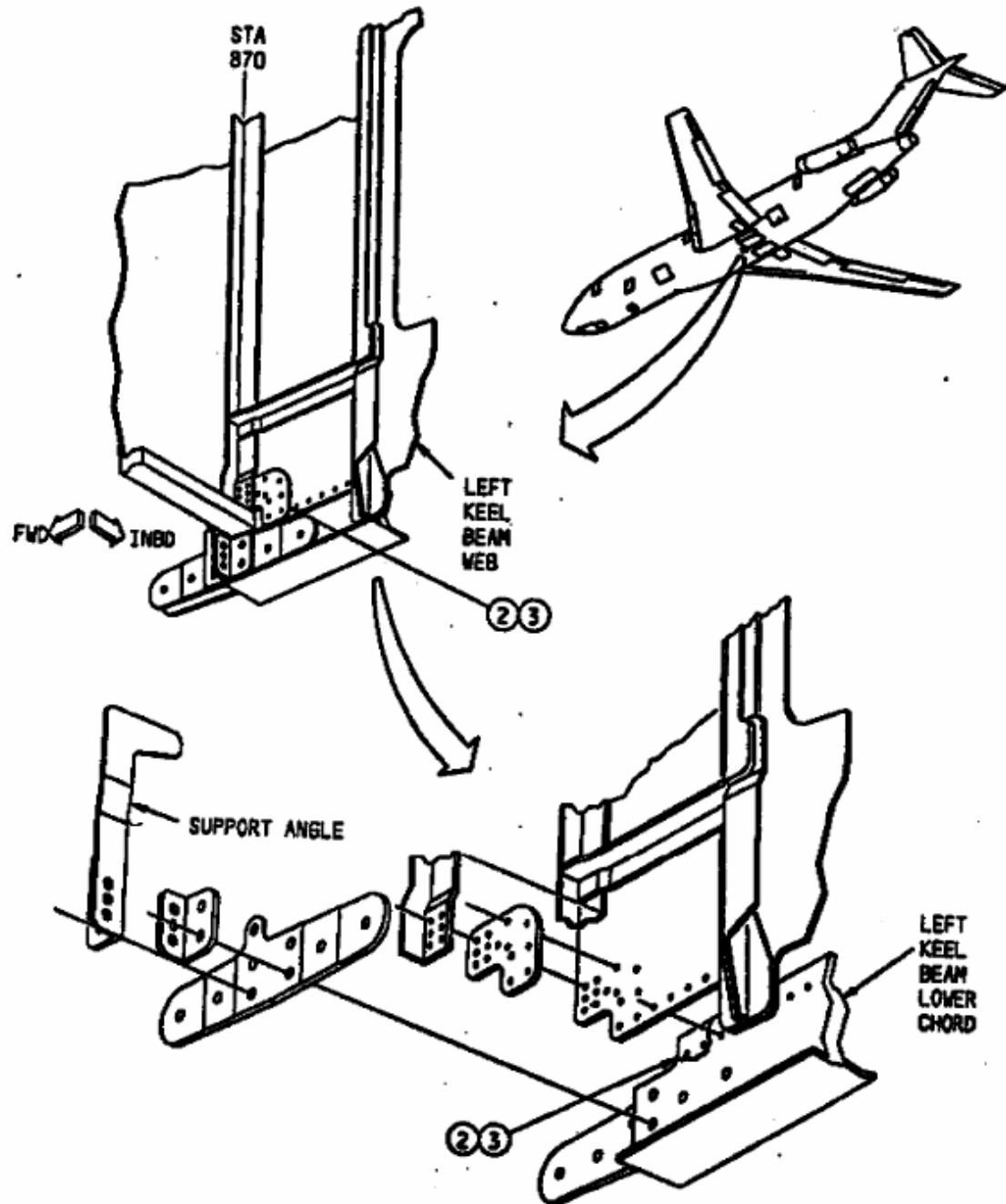


Figure 37. Schematic of keel beam inspection location. DVI was performed on the vertical flanges and support angles for cracking.

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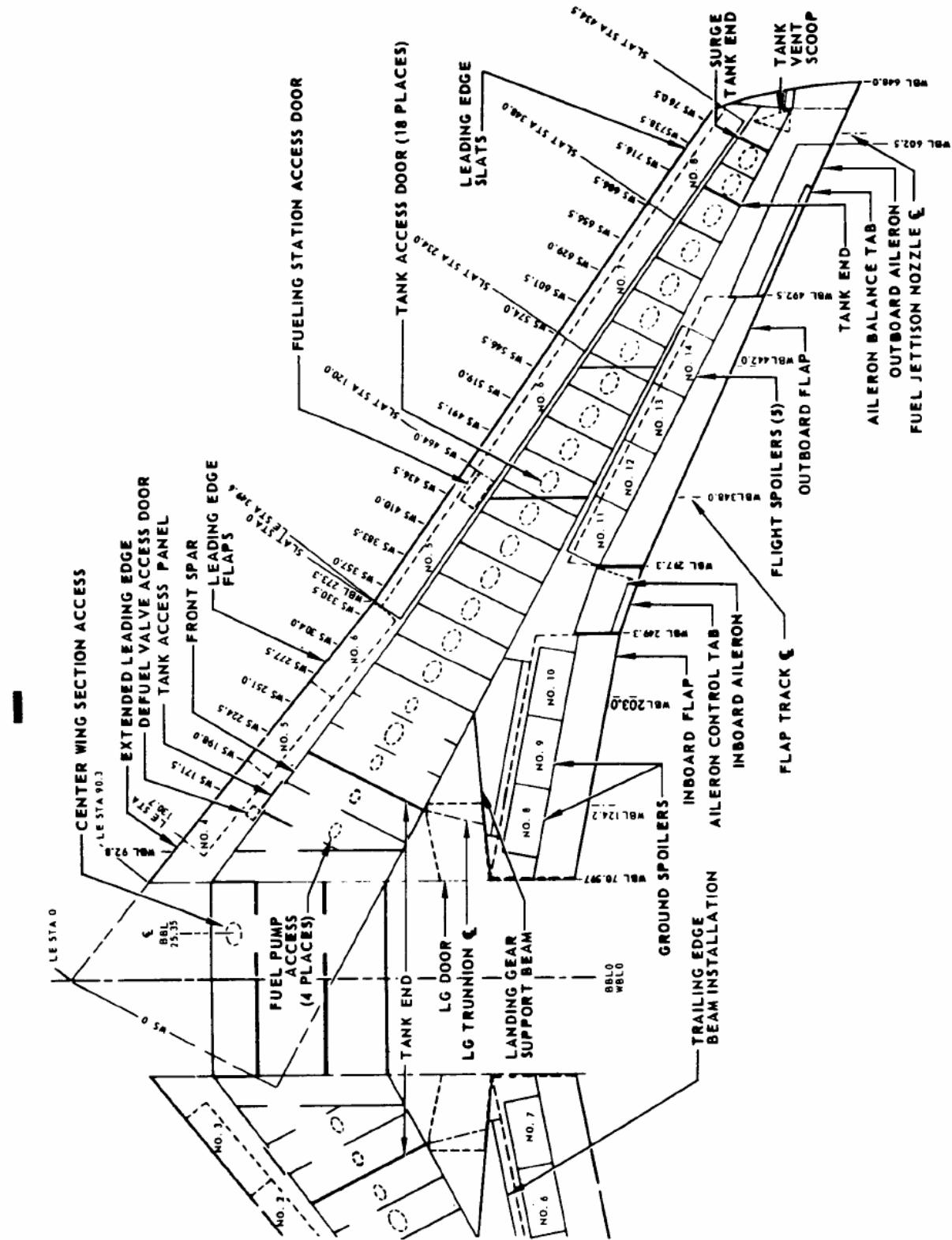


Figure 38. Schematic of B727 wing station diagram.

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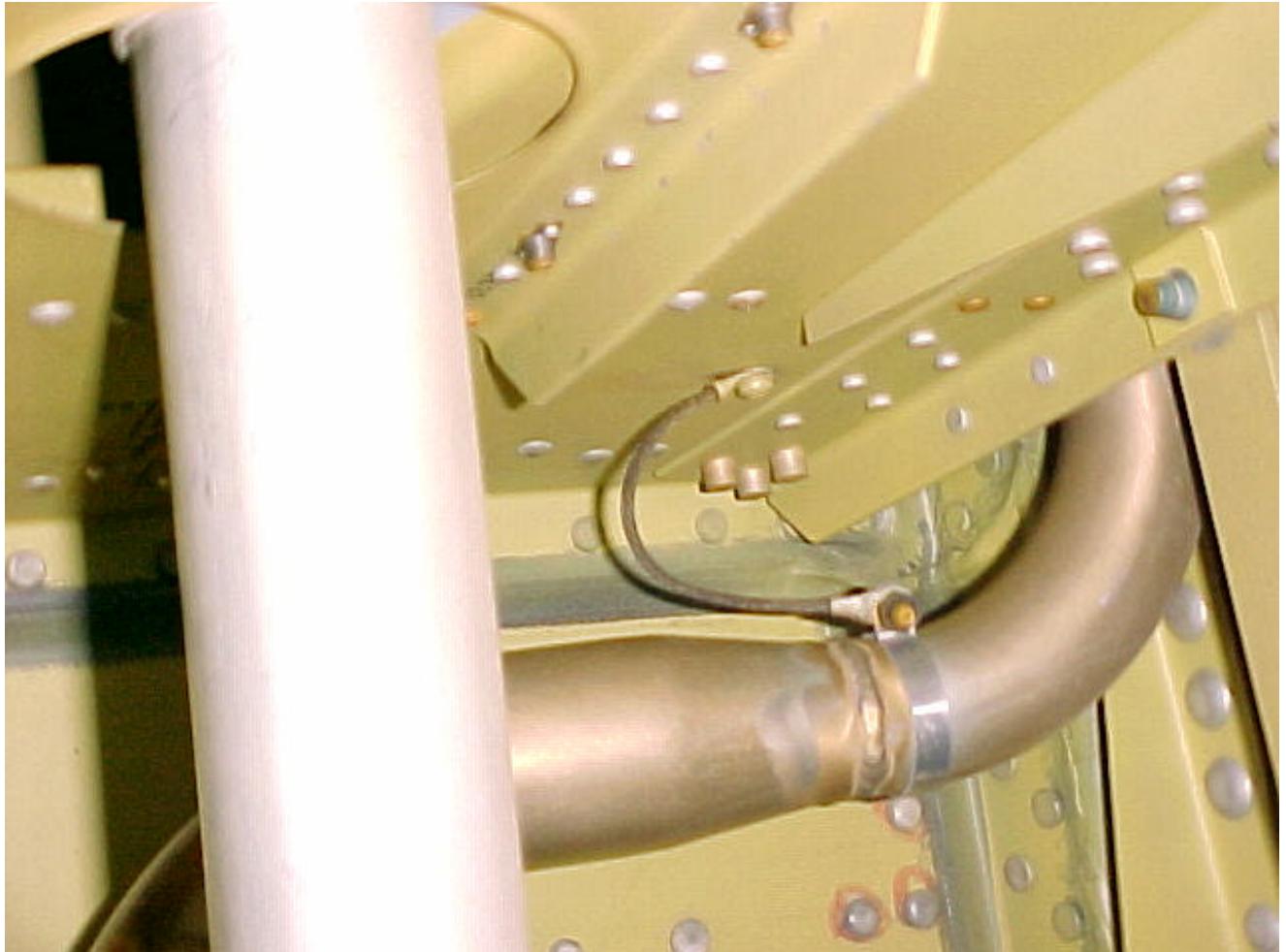


Figure 39. Photograph of inspection area for the rear spar upper chord, vertical flange at WS 293. A DVI and HFEC are both conducted to examine for cracking.

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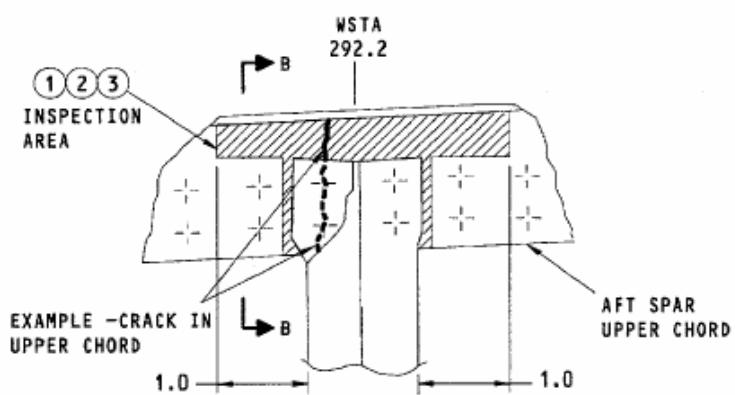
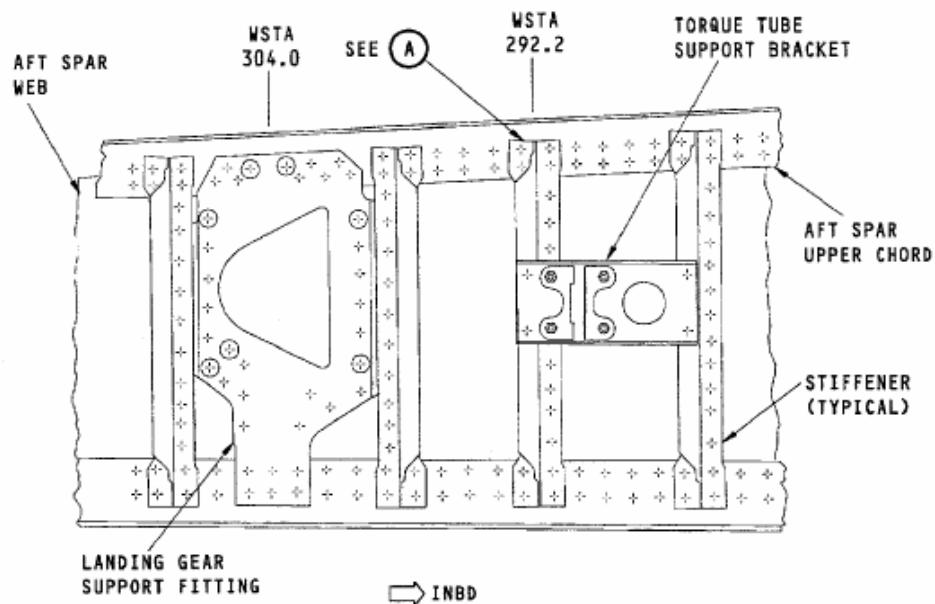
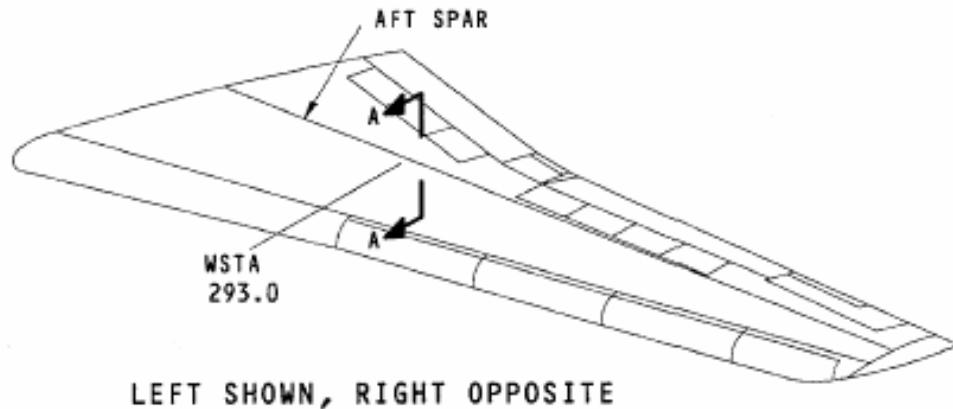


Figure 40. Schematic of rear wing spar upper chord at WS 293 inspection per Service Bulletin 727-57-0184 (DVI and HFEC).

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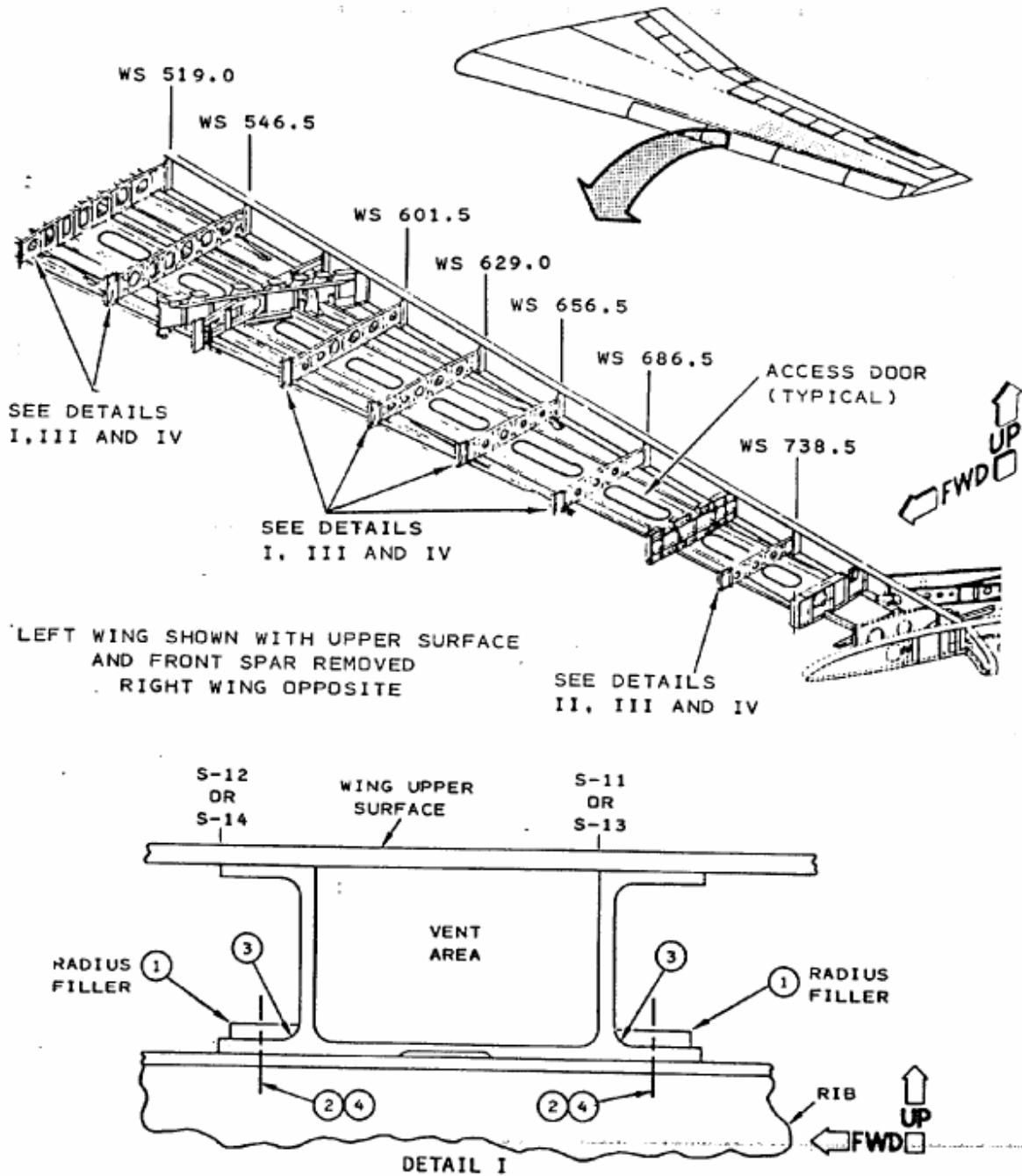


Figure 41. Schematic of outer wing stringer to rib inspection locations (DVI and HFEC).

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Figure 42. Photograph of oversized fasteners at WS 546.5 on the right wing which prevented accomplishment of HFEC and DVI of the outer wing, upper skin stringer-to-rib attachments.

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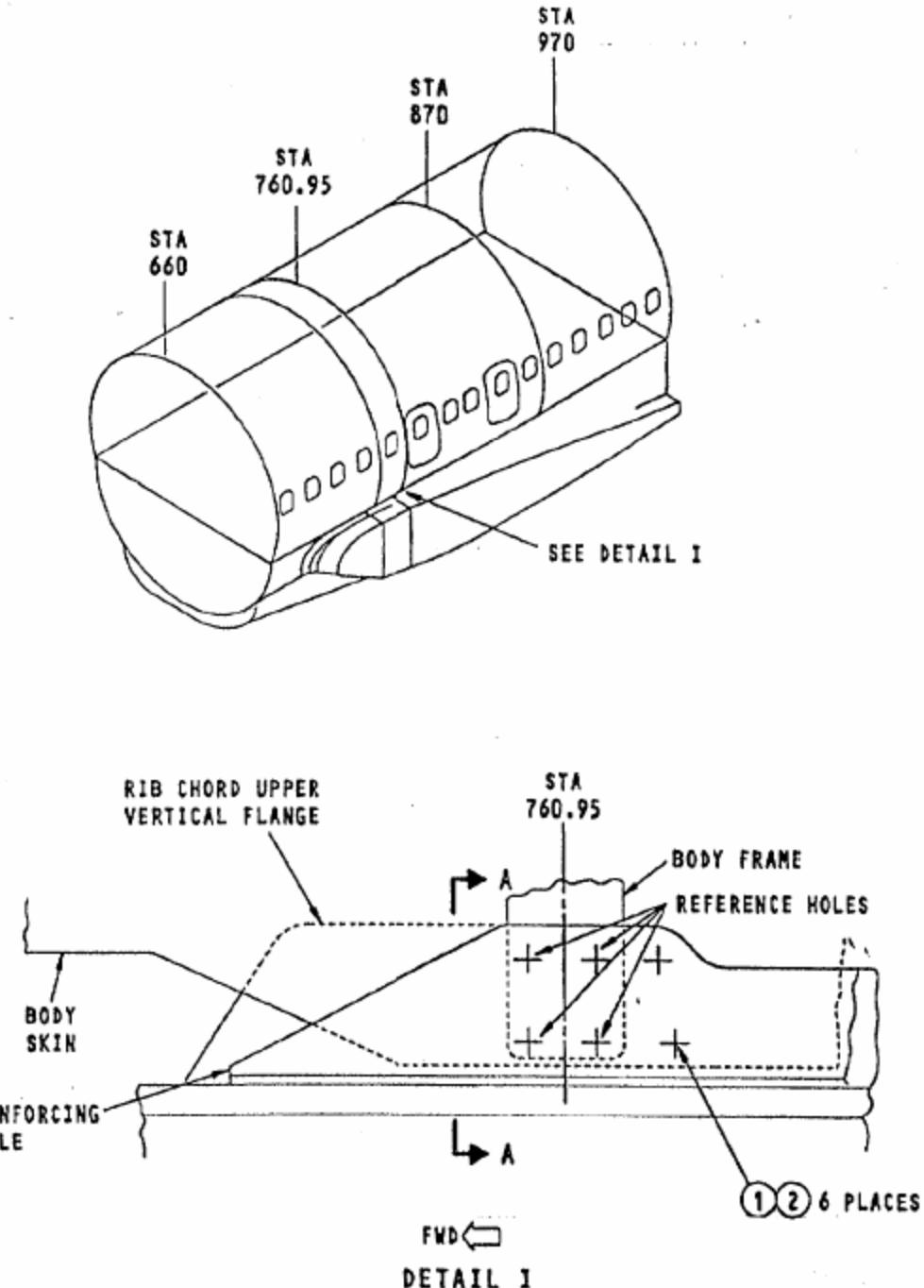


Figure 43. Schematic of wing rib upper chord at BL 70.85 inspection location (DVI).

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## APPENDIX A

## PHOTOGRAPHS OF INITIAL GENERAL VISUAL INSPECTION, LOCATION OF SECTIONS, AND CONDITION OF REMOVED SECTIONS

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Figure A-1. Initial walkaround, left forward quarter.



Figure A-2. Initial walkaround, left side.

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Figure A-3. Initial walkaround, left rear.



Figure A-4. Initial walkaround, rear.

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Figure A-5. Initial walkaround, right rear.



Figure A-6. Initial walkaround, right rear quarter.

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Figure A-7. Initial walkaround, right side.



Figure A-8. Initial walkaround, right front quarter.

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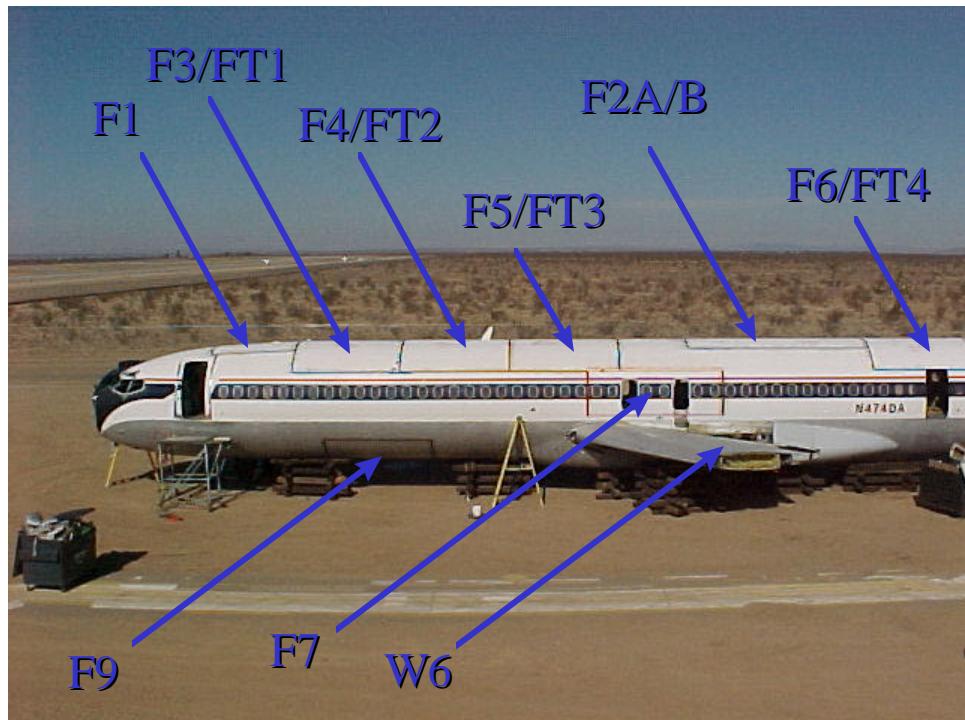


Figure A-9. Specimen overview, left front.

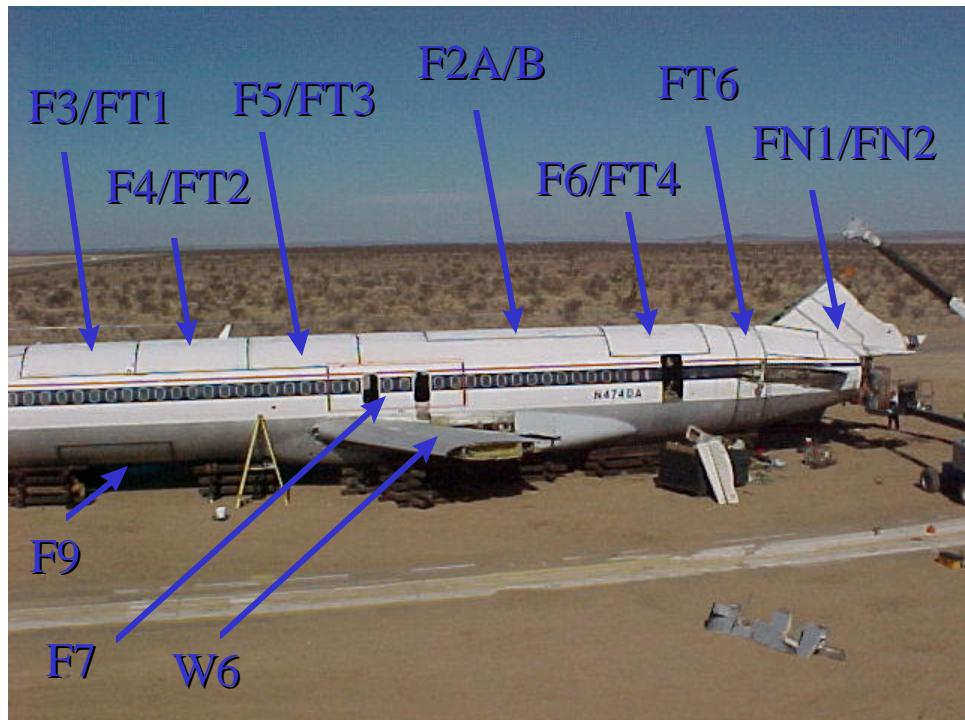


Figure A-10. Specimen overview, left rear.

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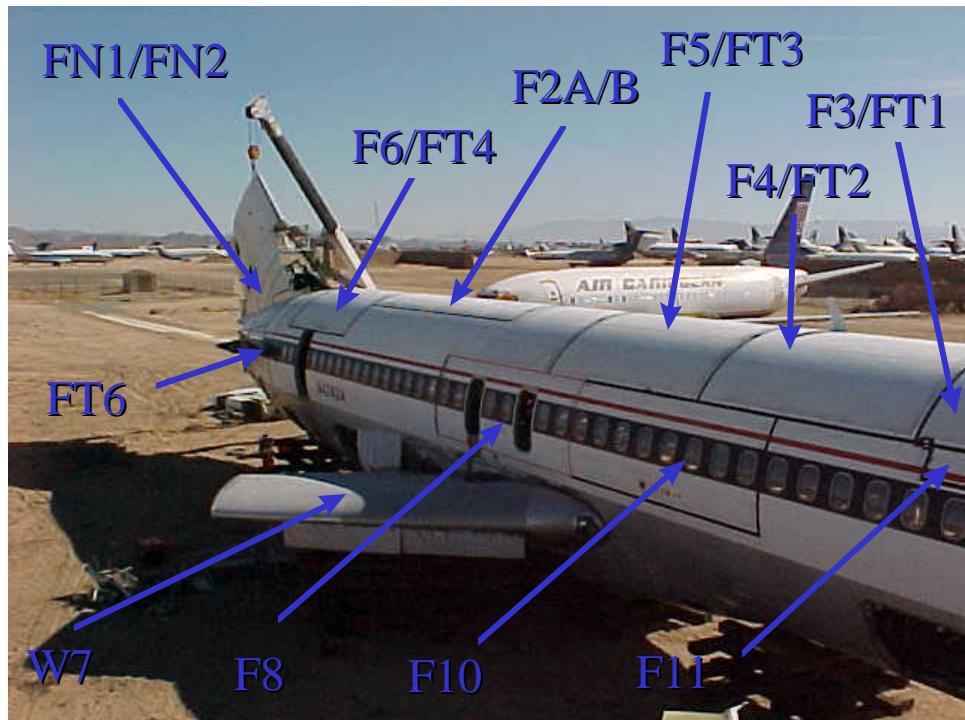


Figure A-11. Specimen overview, right rear.

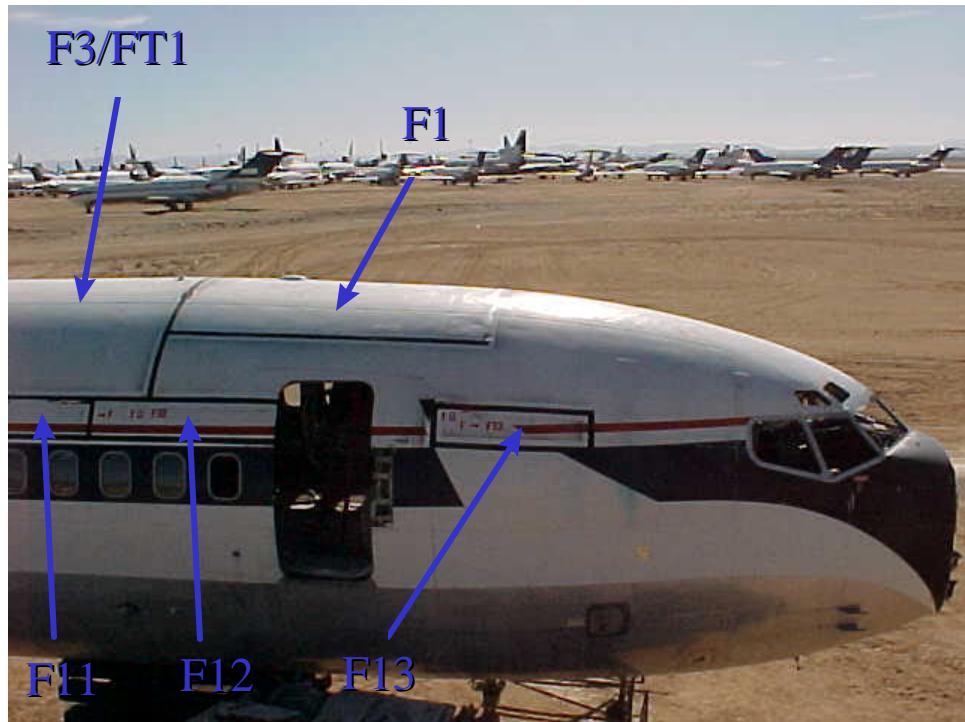


Figure A-12. Specimen overview, right front.

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Figure A-13. F-1, Small Crown Panel 1.



Figure A-14. F-2A/B, Small Crown Panel 2 before removal.

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Figure A-15. F-2A/B, Small Crown Panel 2 after removal.



Figure A-16. F-3/FT-1, Large Crown Panel 1 before removal.

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Figure A-17. F-3/FT-1, Large Crown Panel 1 after removal.



Figure A-18. F-4/FT-2, Large Crown Panel 2 before removal.

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Figure A-19. F-4/FT-2, Large Crown Panel 2 after removal.



Figure A-20. F-5/FT-3, Large Crown Panel 3 before removal.

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Figure A-21. F-5/FT-3, Large Crown Panel 3 after removal.

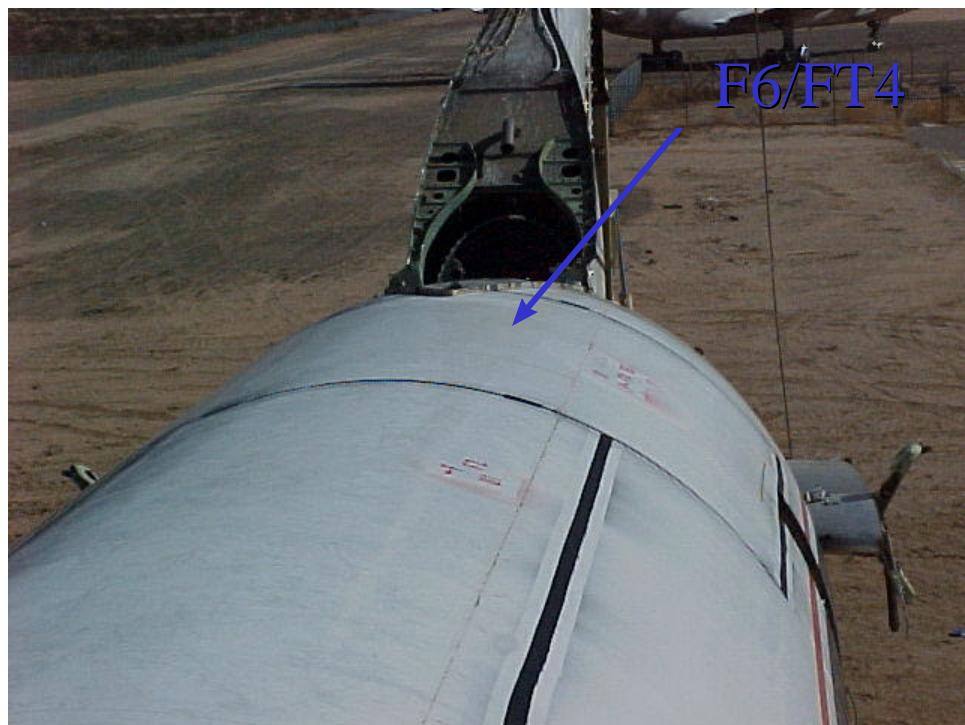


Figure A-22. F-6/FT-4, Large Crown Panel 4 before removal.

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Figure A-23. F-6/FT-4, Large Crown Panel 4 after removal.



Figure A-24. FT-6, Aft Pressure Bulkhead before removal.

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Figure A-25. FT-6, Aft Pressure Bulkhead after removal.



Figure A-26. F-7, Left overwing windowbelt.

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Figure A-27. F-8, Right overwing windowbelt.



Figure A-28. F-9, S-26 Lap joint before removal.

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Figure A-29. F-9, S-26 Lap joint after removal.

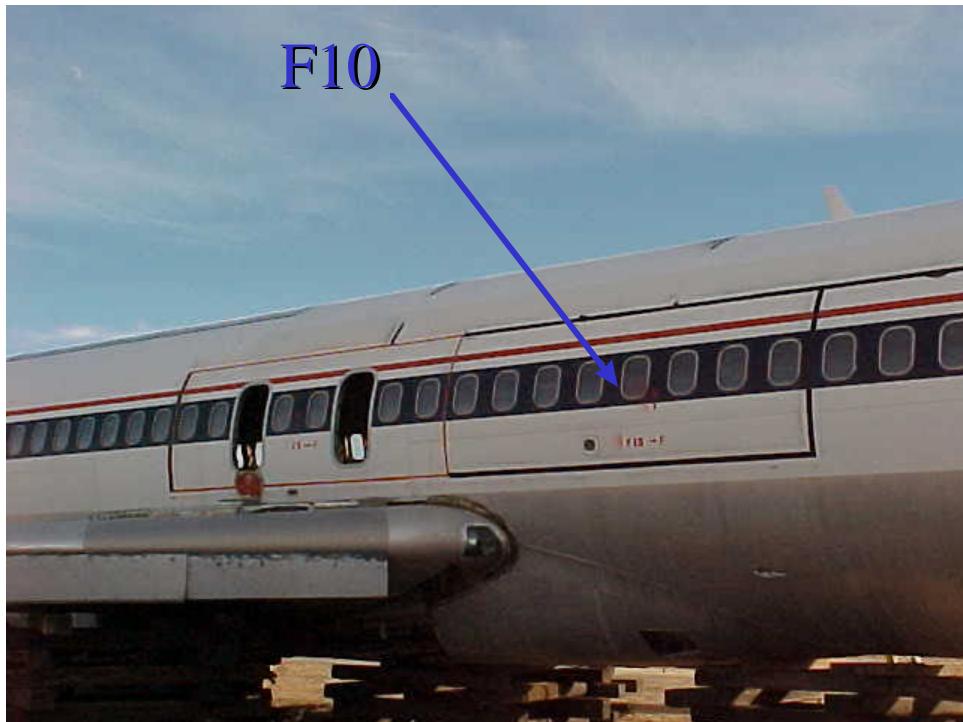


Figure A-30. F-10, Forward fuselage windowbelt.

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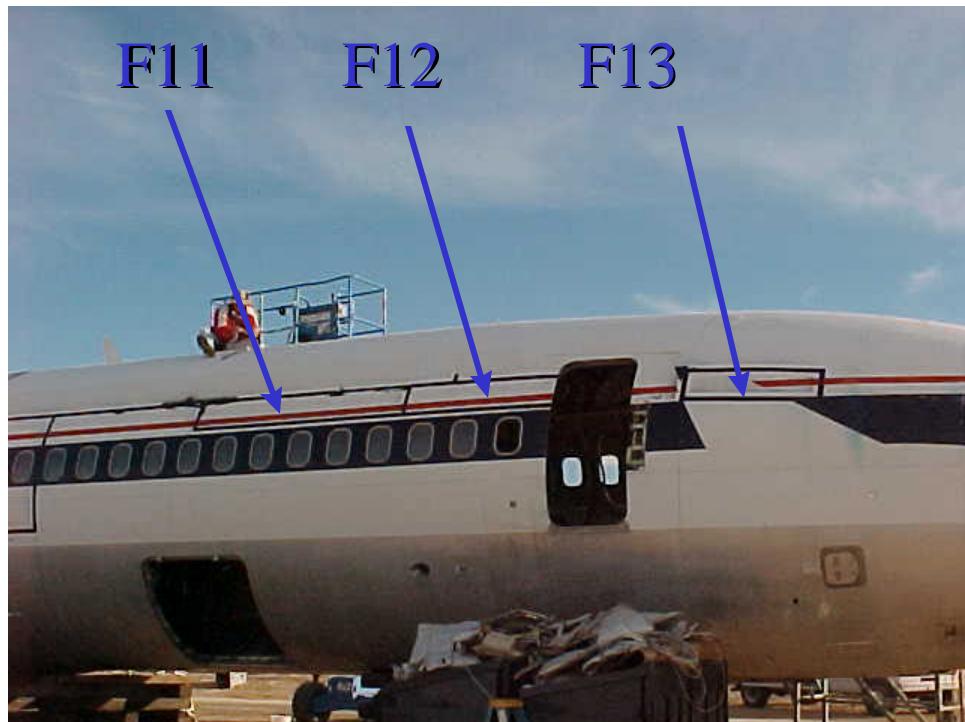


Figure A-31. F-11, F-12, F-13, S-10 at Tearstrap UT indications.

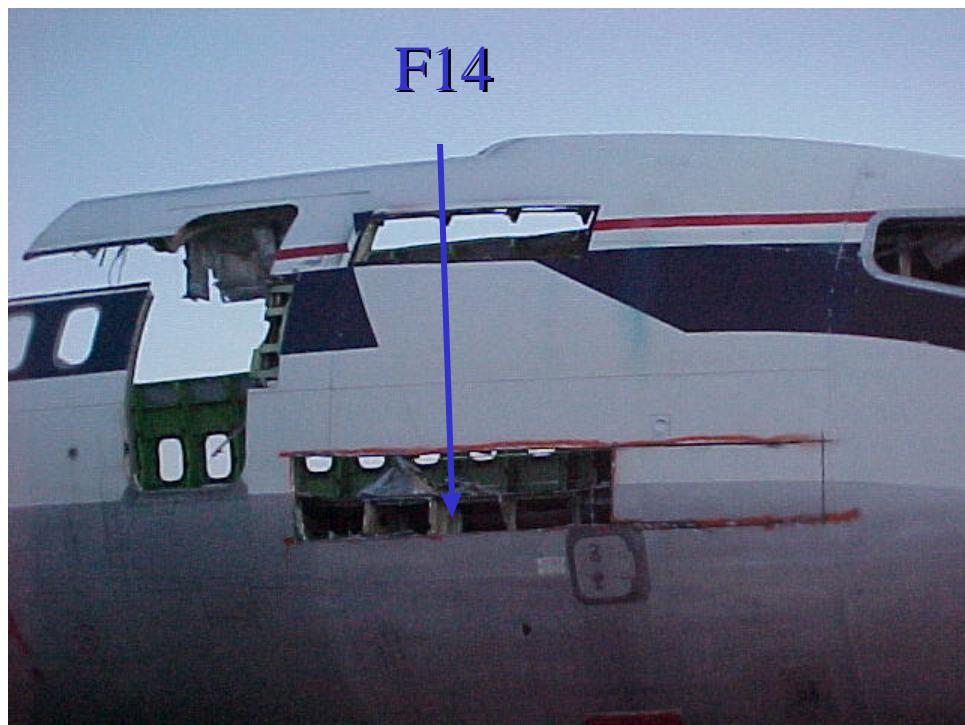


Figure A-32. F-14, Section 41 Frames at Floorline before removal.

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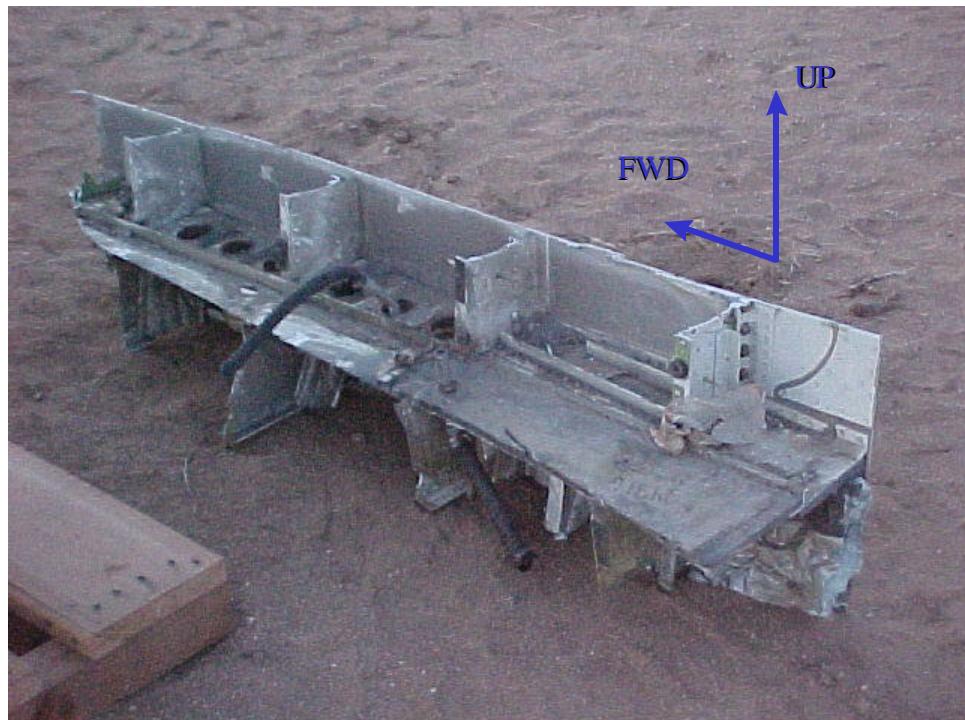


Figure A-33. F-14, Section 41 Frames at Floorline after removal.



Figure A-34. FN1/FN2, Vertical Stabilizer Stringers at Rib 2 before removal.

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Figure A-35. FN1/FN2, Vertical Stabilizer Stringers at Rib 2 after removal.



Figure A-36. H1 and H2, Horizontal Stabilizer before removal.

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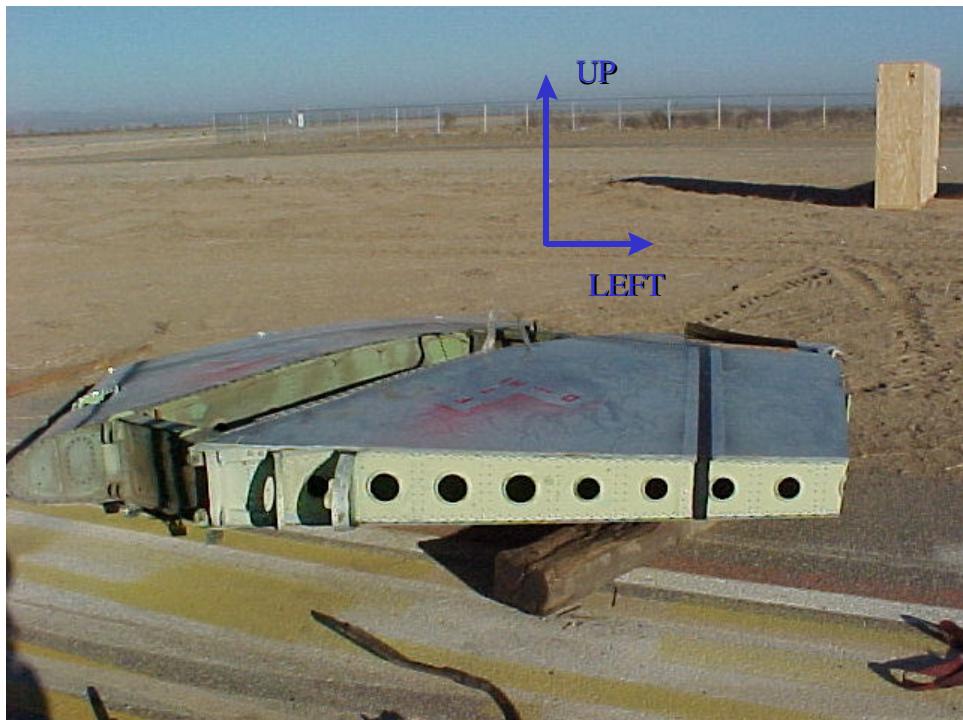


Figure A-37. H1 and H2, Horizontal Stabilizer after removal.



Figure A-38. W2 and W4, Right Wing Root before removal.

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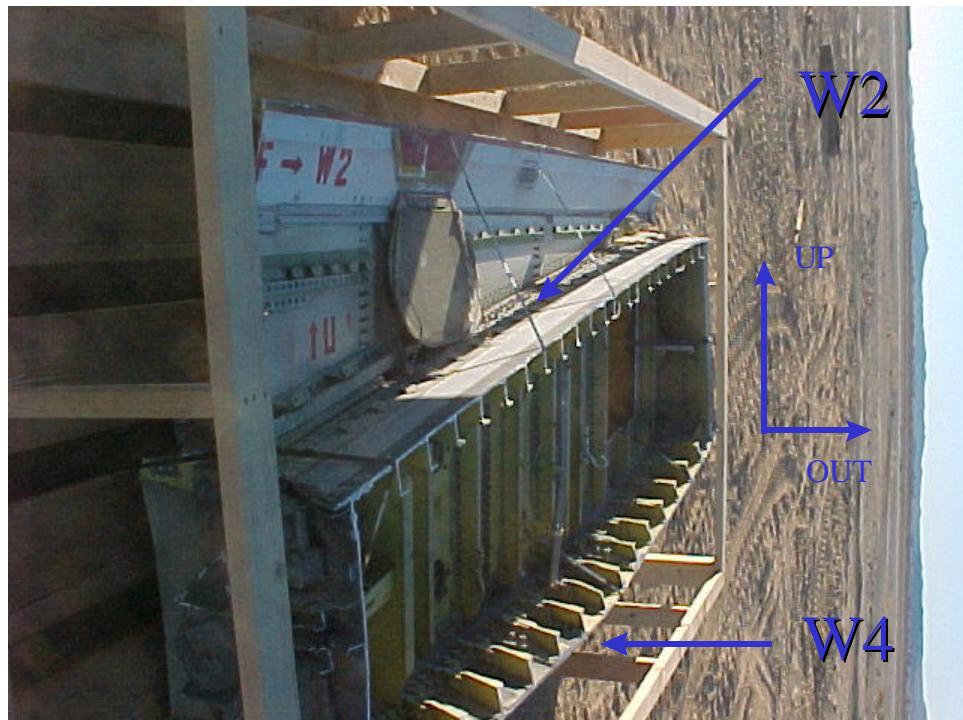


Figure A-39. W2 and W4, Right Wing Root after removal.



Figure A-40. W5, Front spar web before removal.

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Figure A-41. W5, Front spar web after removal.



Figure A-42. W6, Left Outerwing Section before removal.

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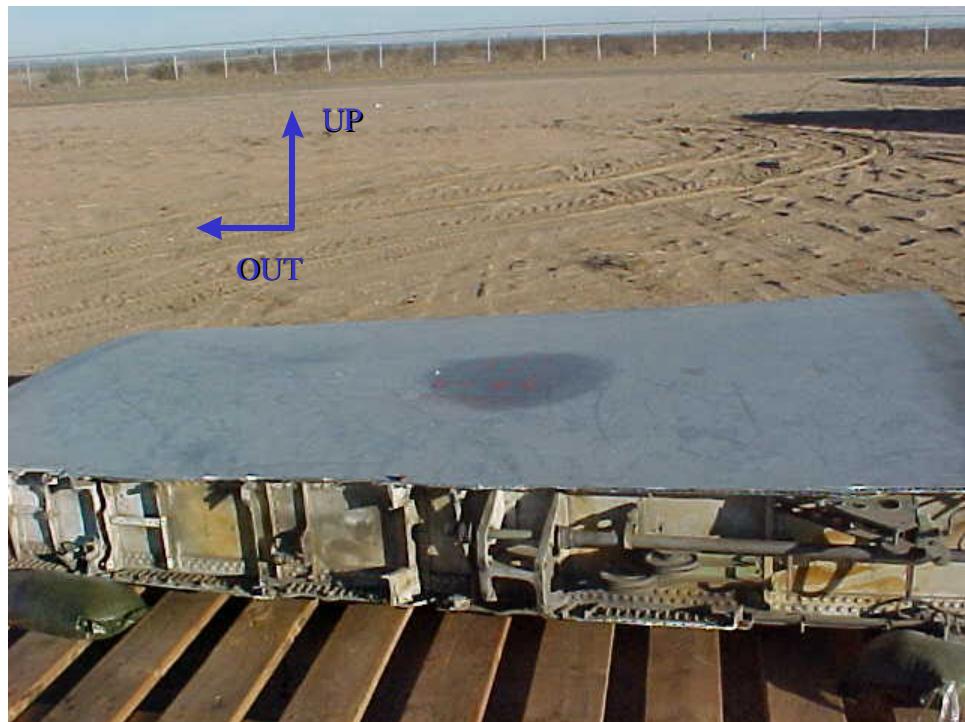


Figure A-43. W6, Left Outerwing Section after removal.



Figure A-44. W7, Right Outerwing Section before removal.

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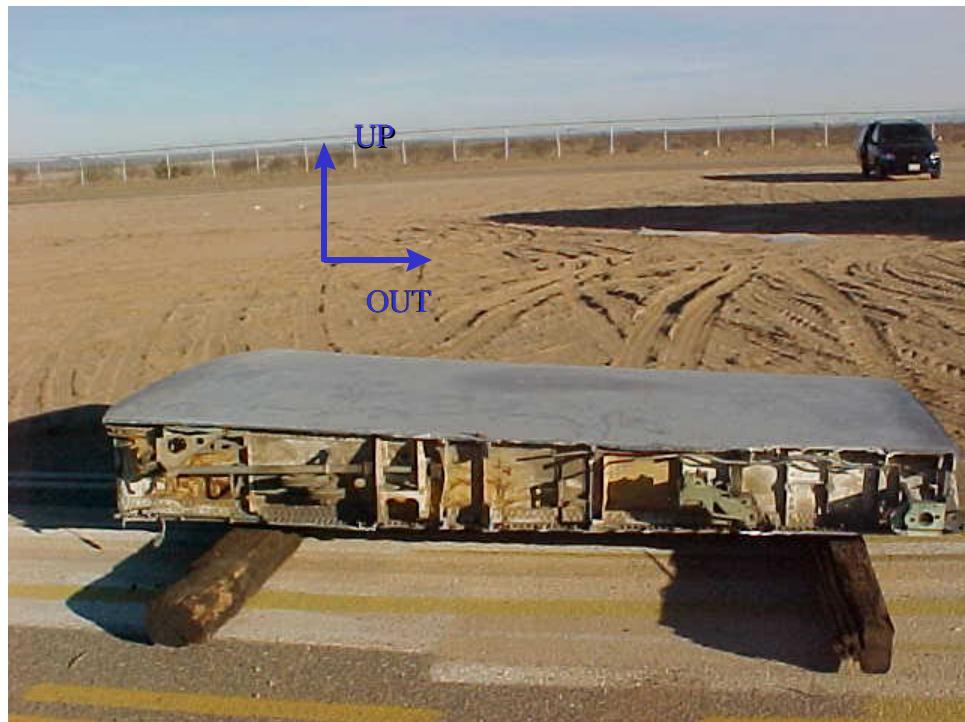


Figure A-45. W7, Right Outerwing Section after removal.

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SHEET	<b>B-11</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR: J. Bohler INSTRUMENT SN: DL50577  
 CODE: PROBE SN: 891078  
 LOCATION: CAL BLOCK SN: 0399211  
 JOB NAME:  
 TEST COMMENTS: LFEC 5/32 cal

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	01 : 50	08	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs 1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	200 Hz
X-pos 1	1H	65	X-pos 2	2H	0
Y-pos 1	1V	-35	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone
Top	TA	-14	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	20	Outer	OA	Off
Start	SA	9.0°	End	EA	315.0°
Analogue 1 Out	A1	Off	Analogue 2 Out	A2	Off
Persist	PE	1sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.A			

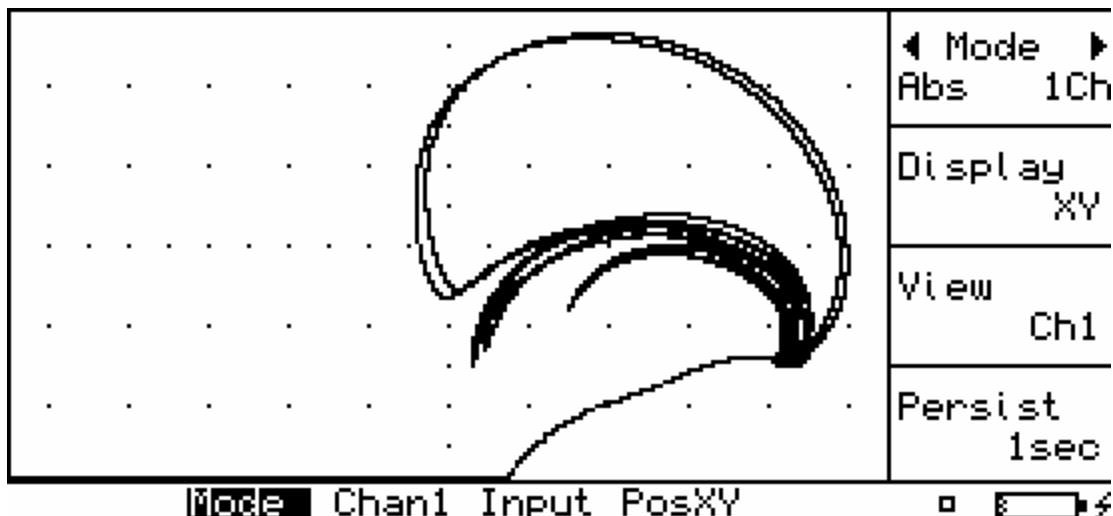


Figure B-1. LFEC calibration on 5/32" rivet.

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SHEET	<b>B-12</b>	NO.	<b>4-086382-20</b>
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OPERATOR: J. Bohler INSTRUMENT SN: DL50577  
 CODE: PROBE SN: 891078  
 LOCATION: CAL BLOCK SN: 0399211  
 JOB NAME:  
 TEST COMMENTS: LFEC 3/16 cal

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	02 : 04	08	Nov	'02	
Probe	PR	Standard	Mode	MO	Abs 1Ch
Display	DI	XY	View	VW	Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	200 Hz
X-pos 1	1H	65	X-pos 2	2H	0
Y-pos 1	1V	-35	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone
Top	TA	-14	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	20	Outer	OA	Off
Start	SA	9.0°	End	EA	315.0°
Analogue 1 Out	A1	Off	Analogue 2 Out	A2	Off
Persist	PE	1sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.A			

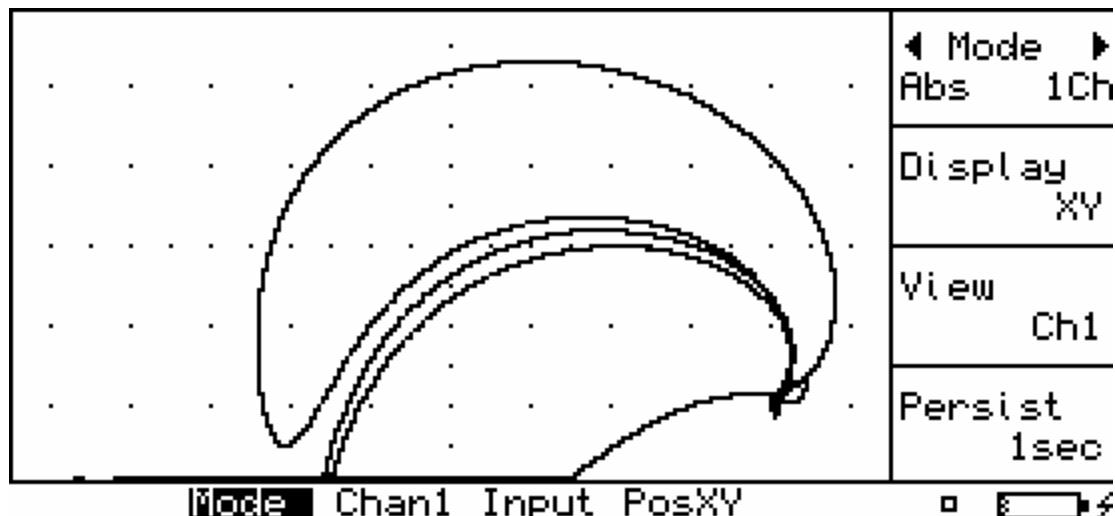


Figure B-2. LFEC calibration on 3/16" rivet.

## ENGINEERING DEPARTMENT

SHEET	<b>B-13</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS:

LFEC str 4R at sta 480 rivet 2

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

Dump 09 : 35 14 Nov '02

Probe Display	PR DI	Standard XY	Mode View	MO VW	Refl 1Ch Ch1
Ch1 Freq	1F	8.0kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	49.0dB	Ch2 Gain	2G	40.0dB
Ch1 Phase	1P	290.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	0.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	65	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	1sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	+20dB	Bal. Load	LO	---
Graticule	GR	Rect.C_			

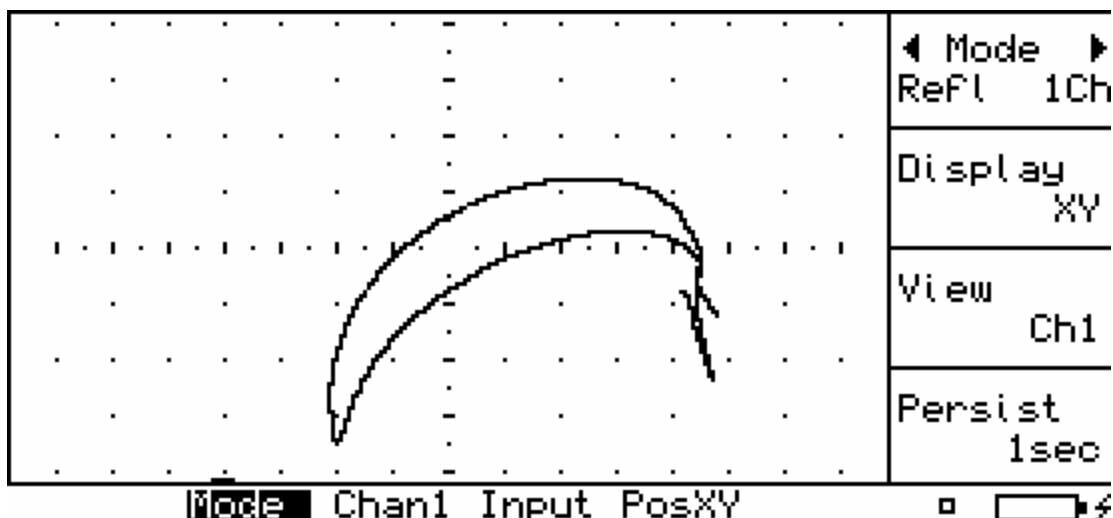


Figure B-3. LFEC indication stringer 4R at BS 480 rivet 2.

## ENGINEERING DEPARTMENT

SHEET	<b>B-14</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR:

INSTRUMENT SN:

CODE:  
 LOCATION:  
 JOB NAME:  
 TEST COMMENTS: LFEC Str 4R at sta 520 rivet 11 fwd side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	09 : 41	14	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Refl 1Ch Ch1
Ch1 Freq	1F	8.0kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	49.0dB	Ch2 Gain	2G	40.0dB
Ch1 Phase	1P	290.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	0.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	65	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	1sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	+20dB	Bal. Load	LO	---
Graticule	GR	Rect.C_			

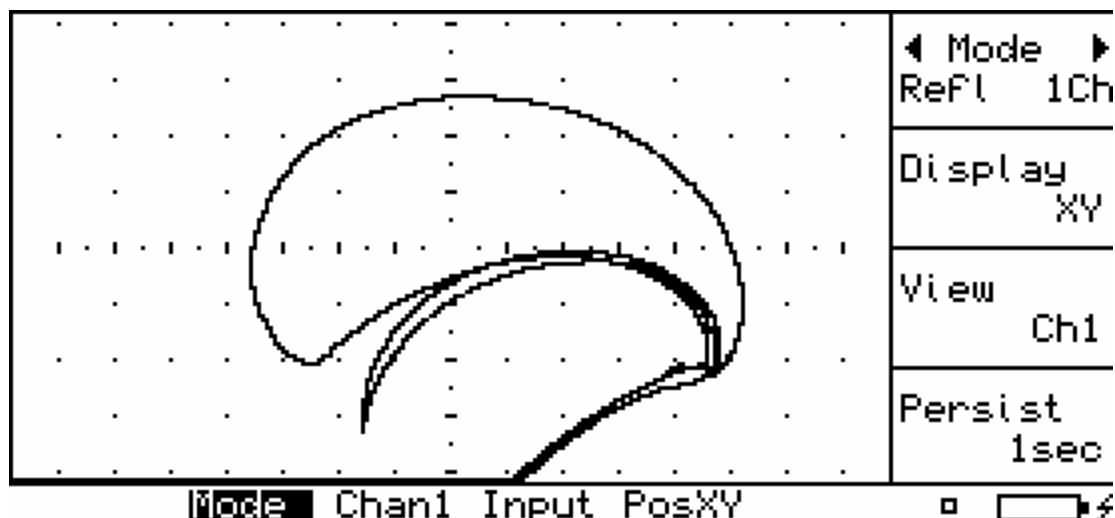


Figure B-4. LFEC indication stringer 4R at BS 520 rivet 11 Forward side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-15</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR:

INSTRUMENT SN:

CODE:  
 LOCATION:  
 JOB NAME:  
 TEST COMMENTS: LFEC Str 4R at sta 520 rivet 11 fwd side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	09 : 41	14	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Refl 1Ch Ch1
Ch1 Freq	1F	8.0kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	49.0dB	Ch2 Gain	2G	40.0dB
Ch1 Phase	1P	290.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	0.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	65	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	1sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	+20dB	Bal. Load	LO	---
Graticule	GR	Rect.C_			

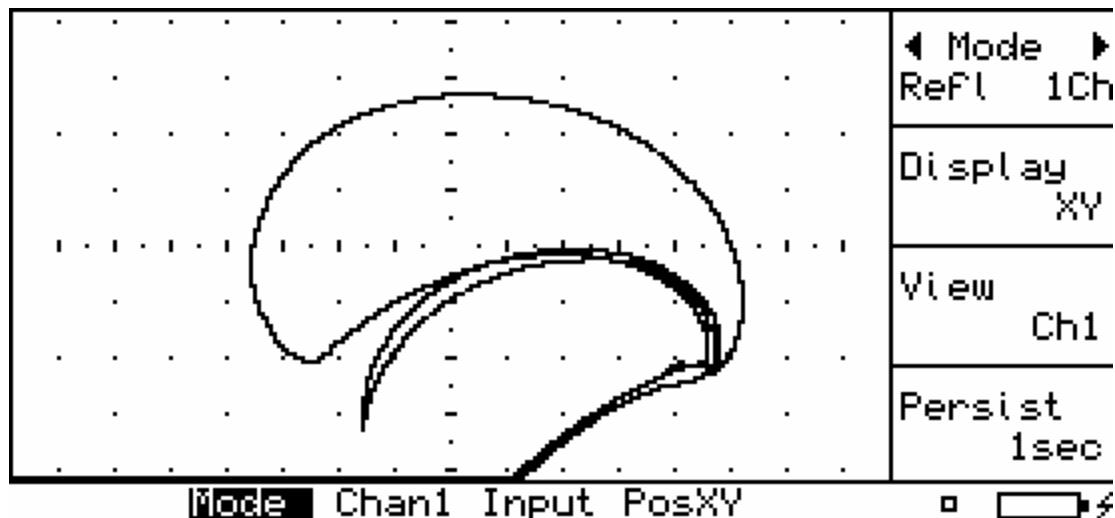


Figure B-5. LFEC indication stringer 4R at BS 520 rivet 13 Forward and Aft side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-16</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: LFEC str 4R at sta 520 rivet 14 fwd and aft side

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

Dump 09 : 46 14 Nov '02

Probe Display	PR DI	Standard XY	Mode View	MO VW	Ref1 1Ch Ch1
Ch1 Freq	1F	8.0kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	49.0dB	Ch2 Gain	2G	40.0dB
Ch1 Phase	1P	290.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	0.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	65	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	1sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	+20dB	Bal. Load	LO	---
Graticule	GR	Rect.C_			

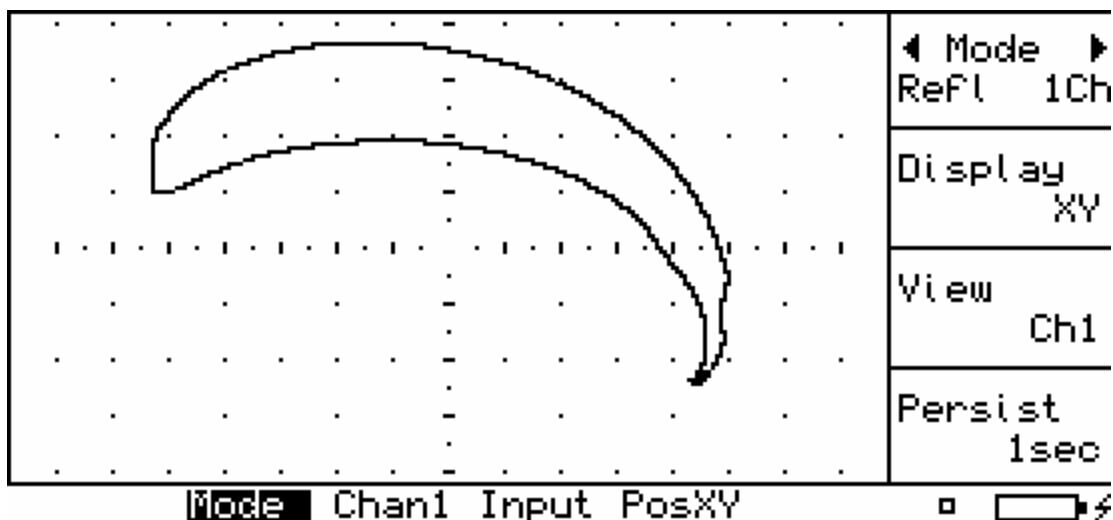


Figure B-6. LFEC indication stringer 4R at BS 520 rivet 14 forward and aft side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-17</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR:

INSTRUMENT SN:

CODE:  
 LOCATION:  
 JOB NAME:  
 TEST COMMENTS: LFEC str 4R at sta 520 rivet 15 fwd side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	09 : 48	14	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Refl 1Ch Ch1
Ch1 Freq	1F	8.0kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	49.0dB	Ch2 Gain	2G	40.0dB
Ch1 Phase	1P	290.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	0.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	65	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	1sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	+20dB	Bal. Load	LO	---
Graticule	GR	Rect.C_			

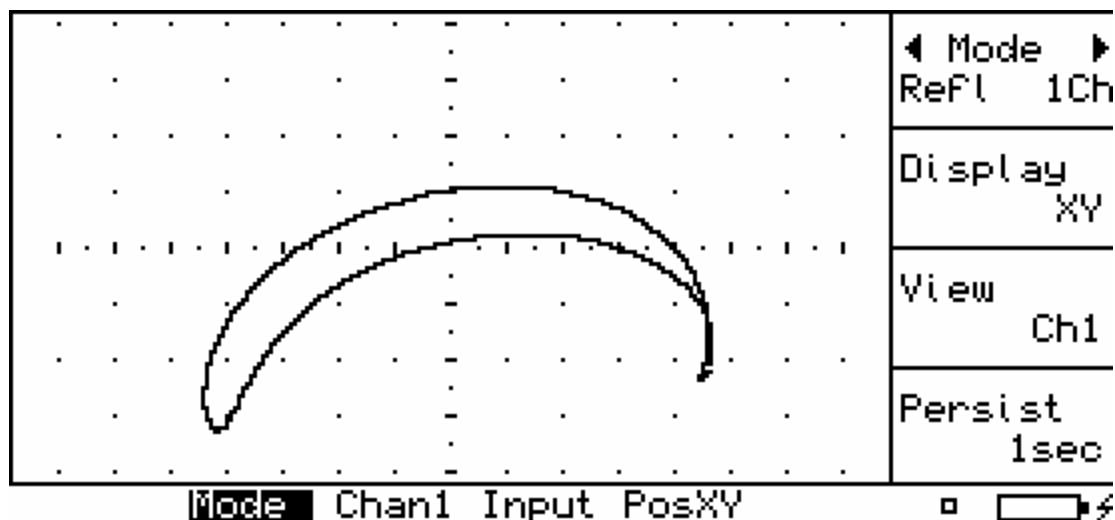


Figure B-7. LFEC indication stringer 4R at BS 520 rivet 15 forward side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-18</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR:

INSTRUMENT SN:

CODE:  
 LOCATION:  
 JOB NAME:  
 TEST COMMENTS: LFEC str 4R at sta 540 rivet 3 fwd side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	09 : 50	14	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Refl 1Ch Ch1
Ch1 Freq	1F	8.0kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	49.0dB	Ch2 Gain	2G	40.0dB
Ch1 Phase	1P	290.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	0.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	65	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	1sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	+20dB	Bal. Load	LO	---
Graticule	GR	Rect.C_			

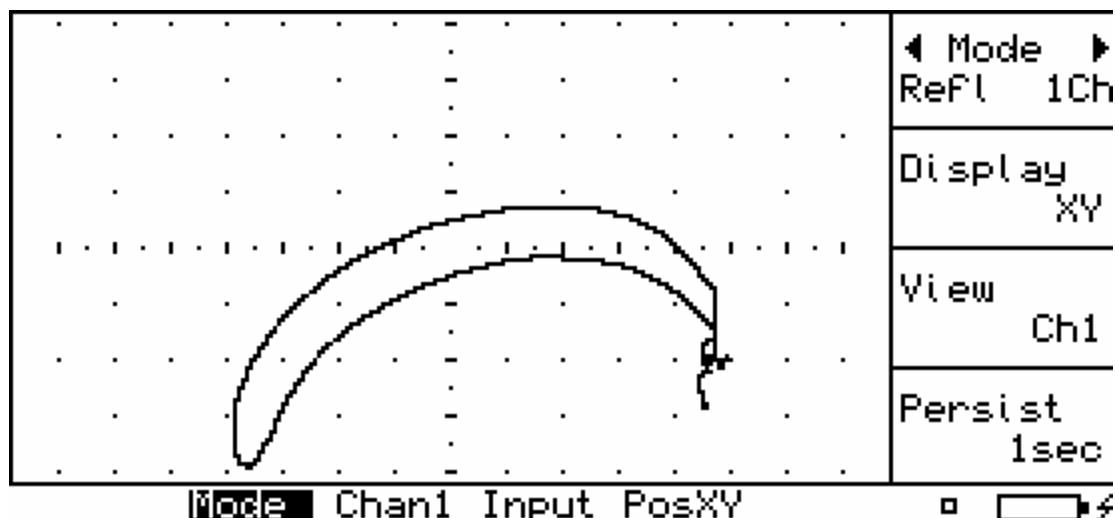


Figure B-8. LFEC indication stringer 4R at BS 540 rivet 3 forward side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-19</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR:

INSTRUMENT SN:

CODE:  
 LOCATION:  
 JOB NAME:  
 TEST COMMENTS: LFEC str 4R at sta 600 rivet 9 fwd side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	09 : 51	14	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Refl 1Ch Ch1
Ch1 Freq	1F	8.0kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	49.0dB	Ch2 Gain	2G	40.0dB
Ch1 Phase	1P	290.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	0.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	65	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	1sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	+20dB	Bal. Load	LO	---
Graticule	GR	Rect.C_			

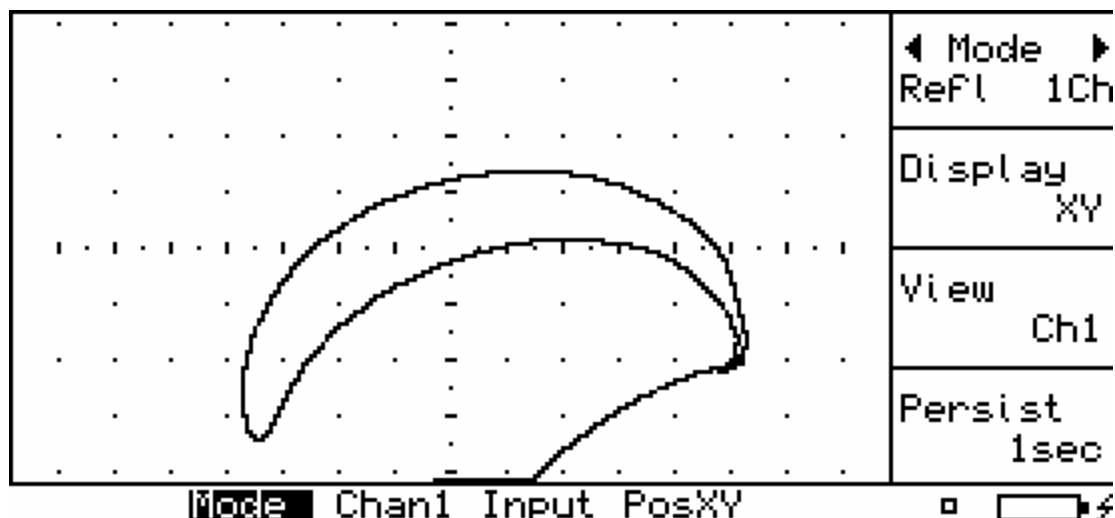


Figure B-9. LFEC indication stringer 4R at BS 600 rivet 9 forward side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-20</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR:

INSTRUMENT SN:

CODE:  
 LOCATION:  
 JOB NAME:  
 TEST COMMENTS: LFEC str 4R at sta 600 rivet 11 fwd side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	09 : 53	14	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Refl 1Ch Ch1
Ch1 Freq	1F	8.0kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	49.0dB	Ch2 Gain	2G	40.0dB
Ch1 Phase	1P	290.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	0.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	65	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	1sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	+20dB	Bal. Load	LO	---
Graticule	GR	Rect.C_			

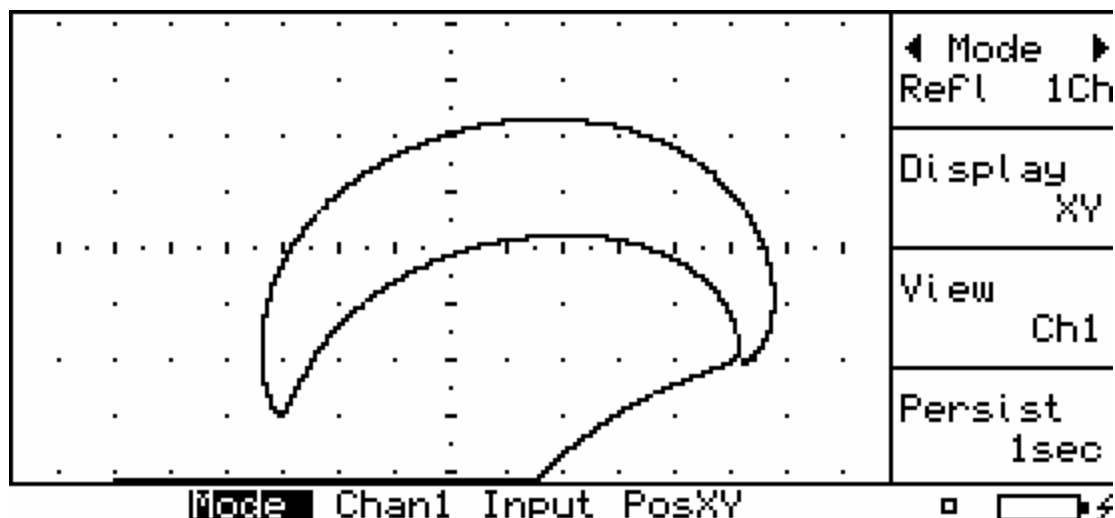


Figure B-10. LFEC indication stringer 4R at BS 600 rivet 11 forward side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-21</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR:

INSTRUMENT SN:

CODE:  
 LOCATION:  
 JOB NAME:  
 TEST COMMENTS: LFEC str 4R at sta 660 rivet 13 aft side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	09 : 55	14	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Refl 1Ch Ch1
Ch1 Freq	1F	8.0kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	49.0dB	Ch2 Gain	2G	40.0dB
Ch1 Phase	1P	290.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	0.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	65	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	1sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	+20dB	Bal. Load	LO	---
Graticule	GR	Rect.C_			

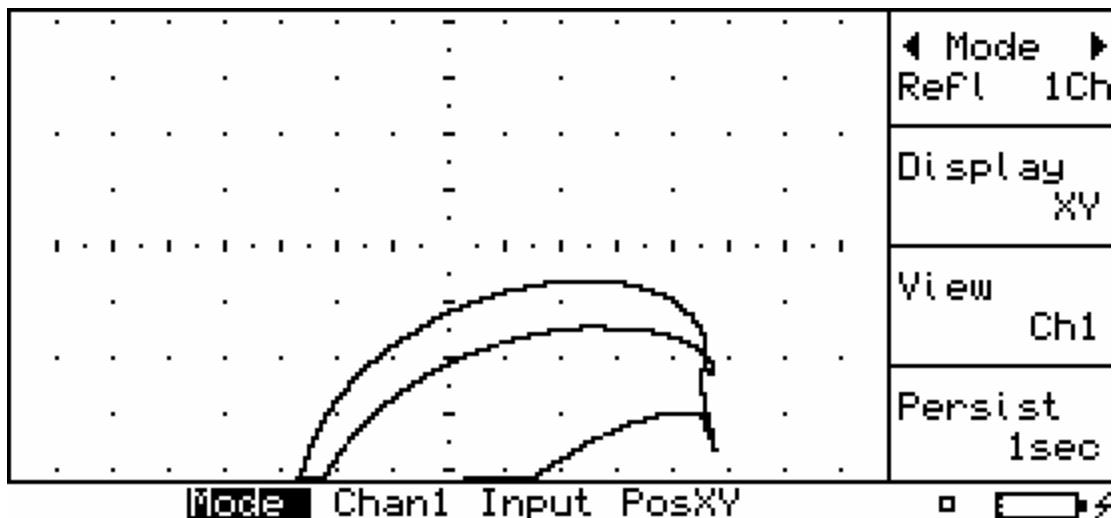


Figure B-11. LFEC indication stringer 4R at BS 660 rivet 13 aft side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-22</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR:

INSTRUMENT SN:

CODE:  
 LOCATION:  
 JOB NAME:  
 TEST COMMENTS: LFEC str 4R at sta 680 rivet 5 aft side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	10 : 10	14	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Refl 1Ch Ch1
Ch1 Freq	1F	8.0kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	49.0dB	Ch2 Gain	2G	40.0dB
Ch1 Phase	1P	290.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	0.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	65	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	1sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	+20dB	Bal. Load	LO	---
Graticule	GR	Rect.C_			

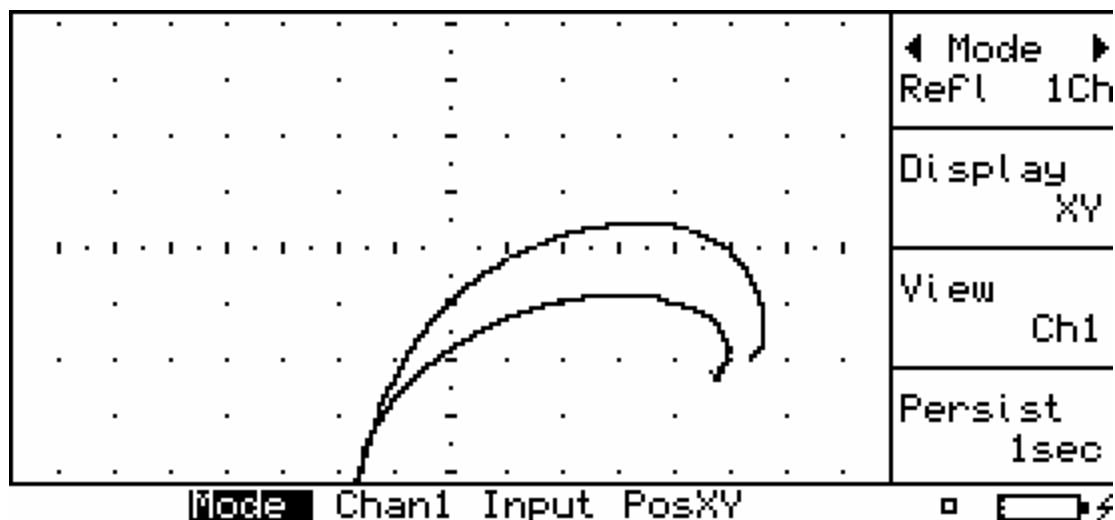


Figure B-12. LFEC indication stringer 4R at BS 680 rivet 5 aft side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-23</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR:

INSTRUMENT SN:

CODE:  
 LOCATION:  
 JOB NAME:  
 TEST COMMENTS: LFEC str 4R at sta 720 rivet 4 aft side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	10 : 17	14	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Refl 1Ch Ch1
Ch1 Freq	1F	8.0kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	49.0dB	Ch2 Gain	2G	40.0dB
Ch1 Phase	1P	290.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	0.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	65	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	1sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	+20dB	Bal. Load	LO	---
Graticule	GR	Rect.C_			

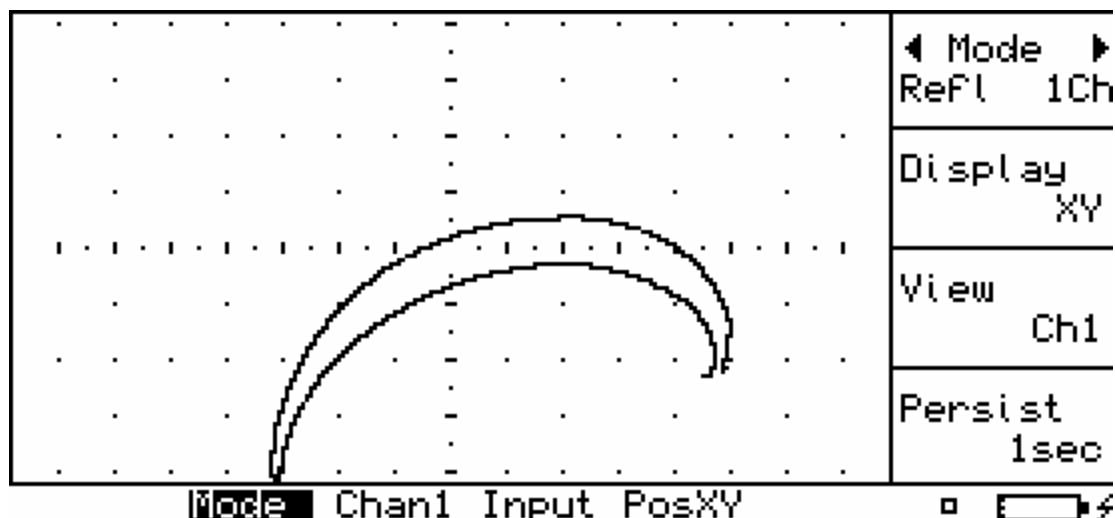


Figure B-13. LFEC indication stringer 4R at BS 720 rivet 4 aft side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-24</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR:

INSTRUMENT SN:

CODE:  
 LOCATION:  
 JOB NAME:  
 TEST COMMENTS: LFEC str 4R at sta 720 rivet 5 fwd side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	10 : 19	14	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Refl 1Ch Ch1
Ch1 Freq	1F	8.0kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	49.0dB	Ch2 Gain	2G	40.0dB
Ch1 Phase	1P	290.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	0.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	65	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	1sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	+20dB	Bal. Load	LO	---
Graticule	GR	Rect.C_			

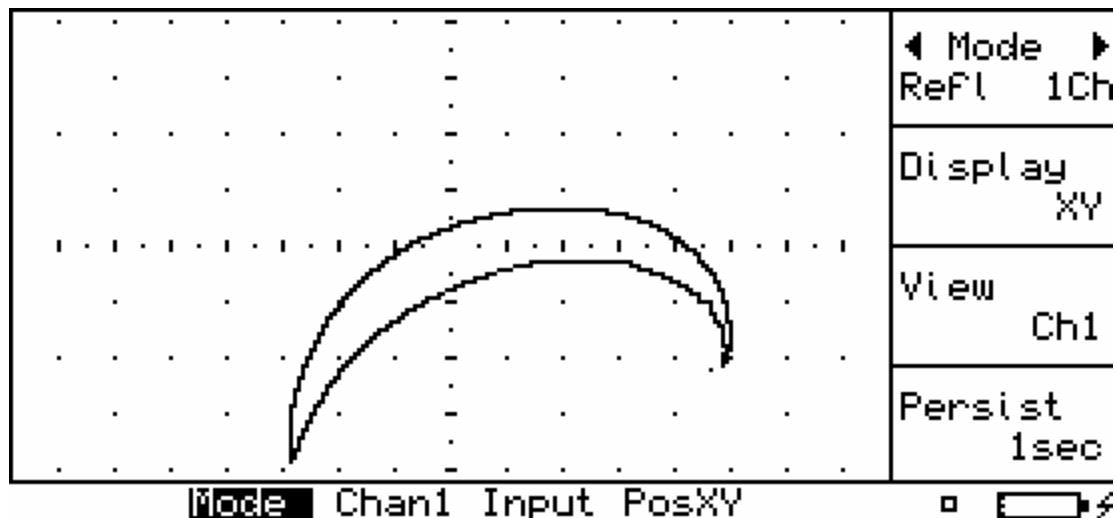


Figure B-14. LFEC indication stringer 4R at BS 720 rivet 5 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-25</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: LFEC str 4R at sta 720A rivet 4 fwd side

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

Dump 10 : 21 14 Nov '02

Probe	PR	Standard	Mode	MO	Refl	1Ch
Display	DI	XY	View	VW		Ch1
Ch1 Freq	1F	8.0kHz	Ch2 Freq	2F		40kHz
Ch1 Gain	1G	49.0dB	Ch2 Gain	2G		40.0dB
Ch1 Phase	1P	290.0°	Ch2 Phase	2P		0.0°
Ch1 X:Y	1R	0.0dB	Ch2 X:Y	2R		0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG		0.0dB
Hi-pass	HP	DC	Lo-pass	LP		100 Hz
X-pos 1	1H	65	X-pos 2	2H		1
Y-pos 1	1V	-32	Y-pos 2	2V		0
Alarm Shape	AT	Off	Apply to	AA		Both
Alarm Stretch	AS	Off	Alarm action	AF	Run	Silent
Top	TA	10	Left	LA		Off
Right	RA	Off	Bottom	BA		Off
Inner	IA	All Off	Outer	OA		55
Start	SA	2.0°	End	EA		5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2		Ch1 Y
Persist	PE	1sec	Sweep	SD		1sec
Zoom	ZM	Normal	Drive	DR	+10dB	6.3V
Inp. Gain	IP	+20dB	Bal. Load	LO		---
Graticule	GR	Rect.C_				

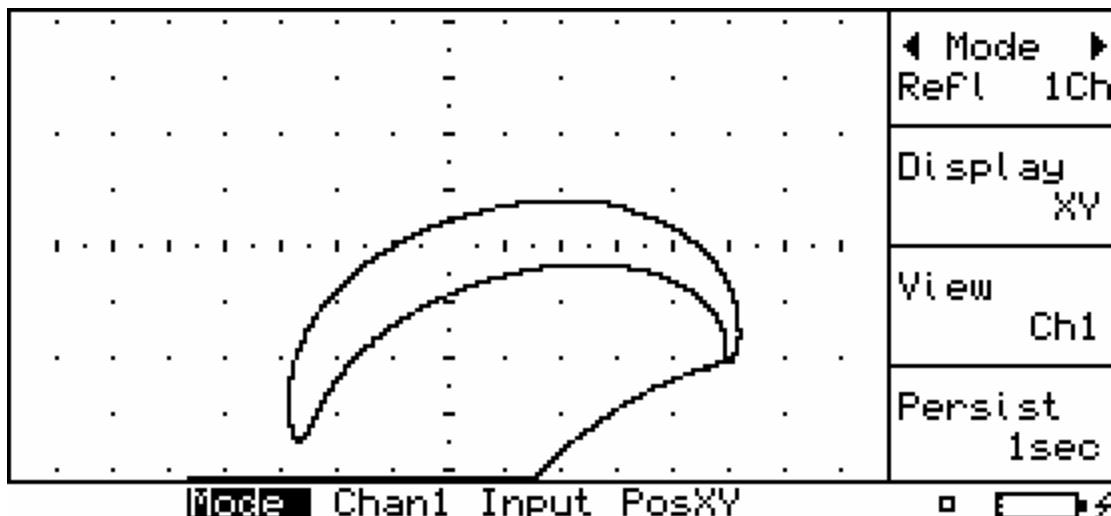


Figure B-15. LFEC indication stringer 4R at BS 720A rivet 4 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-26</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: LFEC str 4R at sta 720B rivet 1 fwd side

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

Dump 10 : 23 14 Nov '02

Probe	PR	Standard	Mode	MO	Refl	1Ch
Display	DI	XY	View	VW		Ch1
Ch1 Freq	1F	8.0kHz	Ch2 Freq	2F		40kHz
Ch1 Gain	1G	49.0dB	Ch2 Gain	2G		40.0dB
Ch1 Phase	1P	290.0°	Ch2 Phase	2P		0.0°
Ch1 X:Y	1R	0.0dB	Ch2 X:Y	2R		0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG		0.0dB
Hi-pass	HP	DC	Lo-pass	LP		100 Hz
X-pos 1	1H	65	X-pos 2	2H		1
Y-pos 1	1V	-32	Y-pos 2	2V		0
Alarm Shape	AT	Off	Apply to	AA		Both
Alarm Stretch	AS	Off	Alarm action	AF Run		Silent
Top	TA	10	Left	LA		Off
Right	RA	Off	Bottom	BA		Off
Inner	IA	All Off	Outer	OA		55
Start	SA	2.0°	End	EA		5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2		Ch1 Y
Persist	PE	1sec	Sweep	SD		1sec
Zoom	ZM	Normal	Drive	DR	+10dB	6.3V
Inp. Gain	IP	+20dB	Bal. Load	LO		---
Graticule	GR	Rect.C				

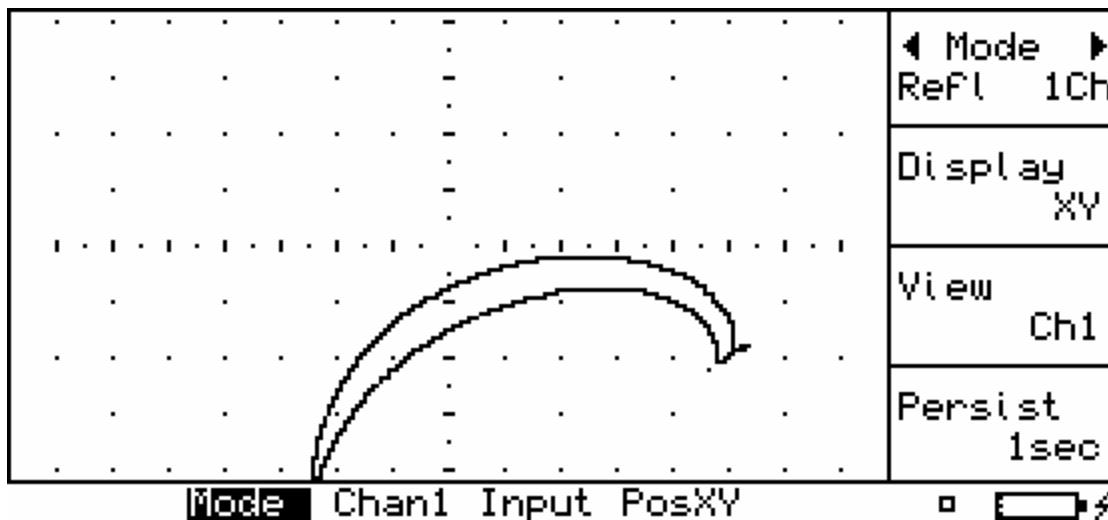


Figure B-16. LFEC indication stringer 4R at BS 720B rivet 1 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-27</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE		12/17/2002	

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: LFEC str 4R at 720B rivet 5 fwd side

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

Dump 10 : 27 14 Nov '02

Probe	PR	Standard	Mode	MO	Refl	1Ch
Display	DI	XY	View	VW	Ch1	
Ch1 Freq	1F	8.0kHz	Ch2 Freq	2F	40kHz	
Ch1 Gain	1G	49.0dB	Ch2 Gain	2G	40.0dB	
Ch1 Phase	1P	290.0°	Ch2 Phase	2P	0.0°	
Ch1 X:Y	1R	0.0dB	Ch2 X:Y	2R	0.0dB	
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB	
Hi-pass	HP	DC	Lo-pass	LP	100 Hz	
X-pos 1	1H	65	X-pos 2	2H	1	
Y-pos 1	1V	-32	Y-pos 2	2V	0	
Alarm Shape	AT	Off	Apply to	AA	Both	
Alarm Stretch	AS	Off	Alarm action	AF	Run	Silent
Top	TA	10	Left	LA	Off	
Right	RA	Off	Bottom	BA	Off	
Inner	IA	All Off	Outer	OA	55	
Start	SA	2.0°	End	EA	5.0°	
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y	
Persist	PE	1sec	Sweep	SD	1sec	
Zoom	ZM	Normal	Drive	DR	+10dB	6.3V
Inp. Gain	IP	+20dB	Bal. Load	LO	---	
Graticule	GR	Rect.C_				

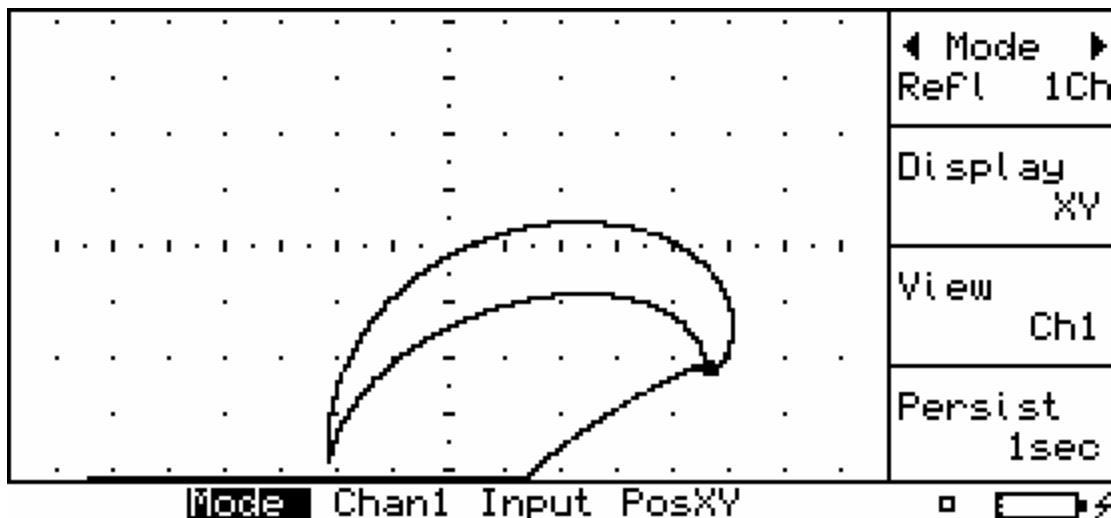


Figure B-17. LFEC indication stringer 4R at BS 720B rivet 5 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-28</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR:

INSTRUMENT SN:

CODE:  
 LOCATION:  
 JOB NAME:  
 TEST COMMENTS: LFEC str 4R at sta 720B rivet 7 aft side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	10 : 29	14	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Refl 1Ch Ch1
Ch1 Freq	1F	8.0kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	49.0dB	Ch2 Gain	2G	40.0dB
Ch1 Phase	1P	290.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	0.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	65	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	1sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	+20dB	Bal. Load	LO	---
Graticule	GR	Rect.C_			

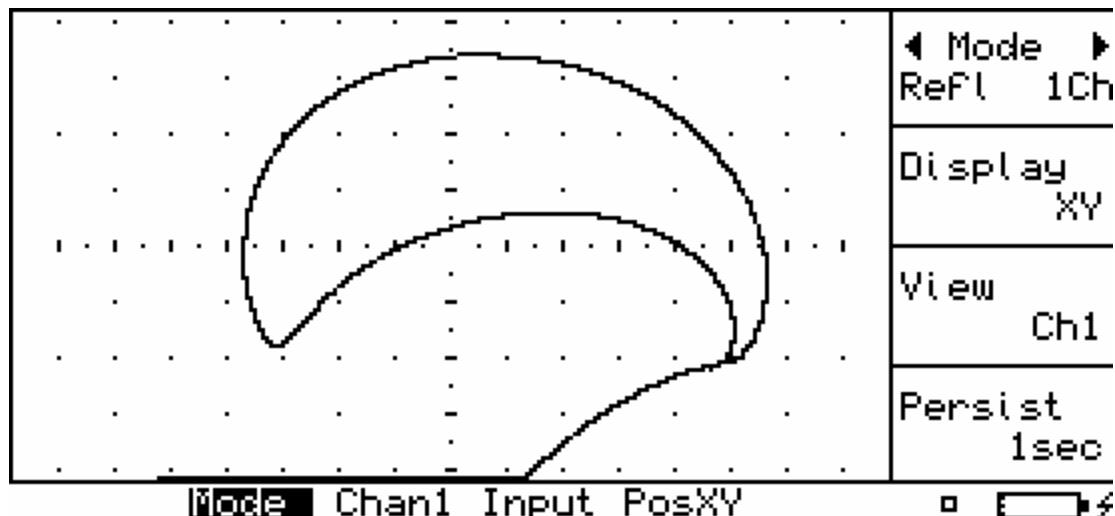


Figure B-18. LFEC indication stringer 4R at BS 720B rivet 7 aft side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-29</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR:

INSTRUMENT SN:

CODE: PROBE SN:  
 LOCATION: CAL BLOCK SN:  
 JOB NAME:  
 TEST COMMENTS: LFEC str 4R at station 720B rivet 8 fwd side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	10 : 31	14	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Refl 1Ch Ch1
Ch1 Freq	1F	8.0kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	49.0dB	Ch2 Gain	2G	40.0dB
Ch1 Phase	1P	290.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	0.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	65	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	1sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	+20dB	Bal. Load	LO	---
Graticule	GR	Rect.C_			

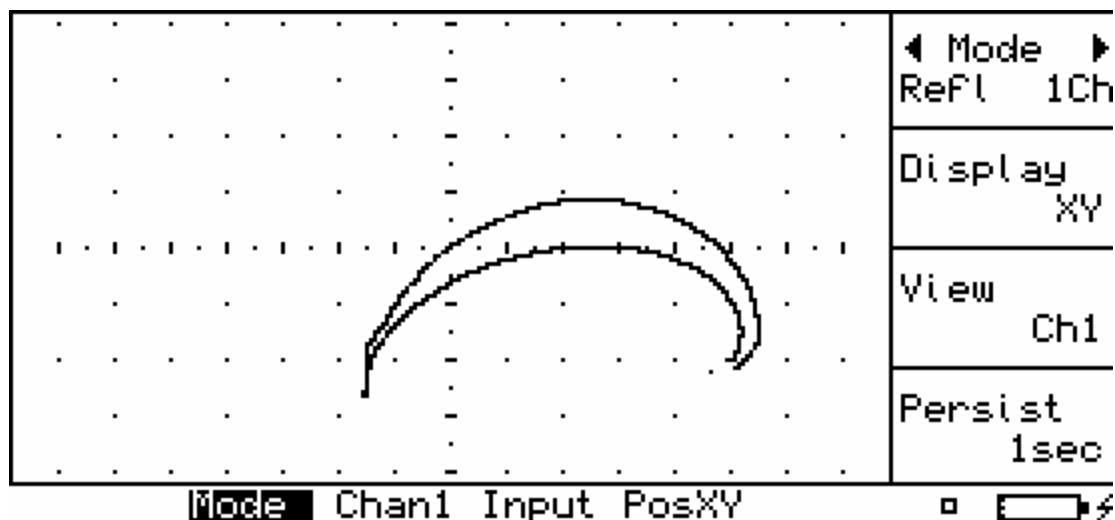


Figure B-19. LFEC indication stringer 4R at BS 720B rivet 8 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-30</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR:

INSTRUMENT SN:

CODE: PROBE SN:  
 LOCATION: CAL BLOCK SN:  
 JOB NAME:  
 TEST COMMENTS: LFEC str 4R at station 720C rivet 8 fwd side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	10 : 33	14	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Refl 1Ch Ch1
Ch1 Freq	1F	8.0kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	49.0dB	Ch2 Gain	2G	40.0dB
Ch1 Phase	1P	290.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	0.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	65	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	1sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	+20dB	Bal. Load	LO	---
Graticule	GR	Rect.C_			

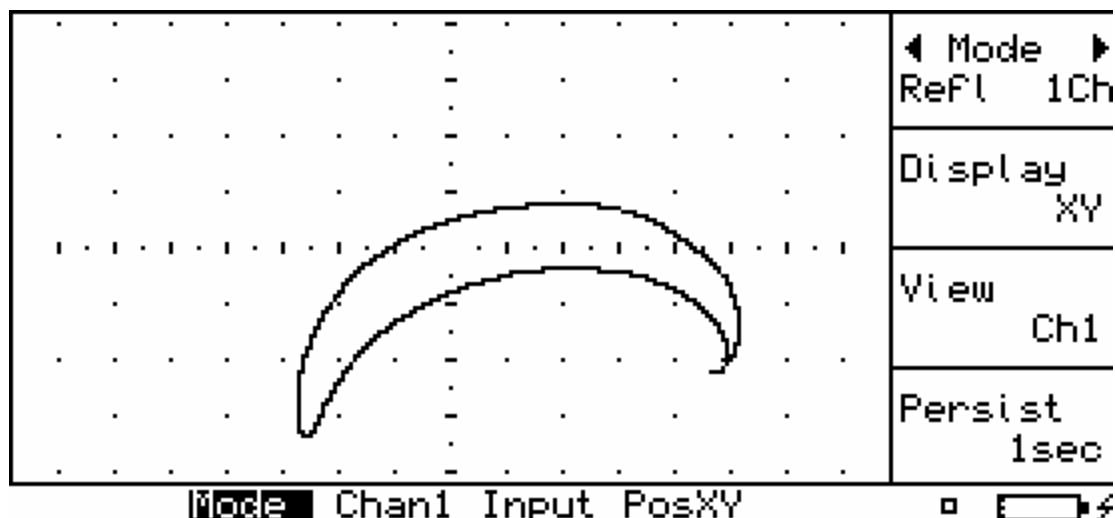


Figure B-20. LFEC indication stringer 4R at BS 720C rivet 8 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-31</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR: J. Bohler INSTRUMENT SN: DL50577  
 CODE: PROBE SN:  
 LOCATION: CAL BLOCK SN:  
 JOB NAME:  
 TEST COMMENTS: HFEC surface Cal

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	02 : 09	08	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs 1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	200 Hz
X-pos 1	1H	65	X-pos 2	2H	0
Y-pos 1	1V	-35	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone
Top	TA	-14	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	20	Outer	OA	Off
Start	SA	9.0°	End	EA	315.0°
Analogue 1 Out	A1	Off	Analogue 2 Out	A2	Off
Persist	PE	1sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.A			

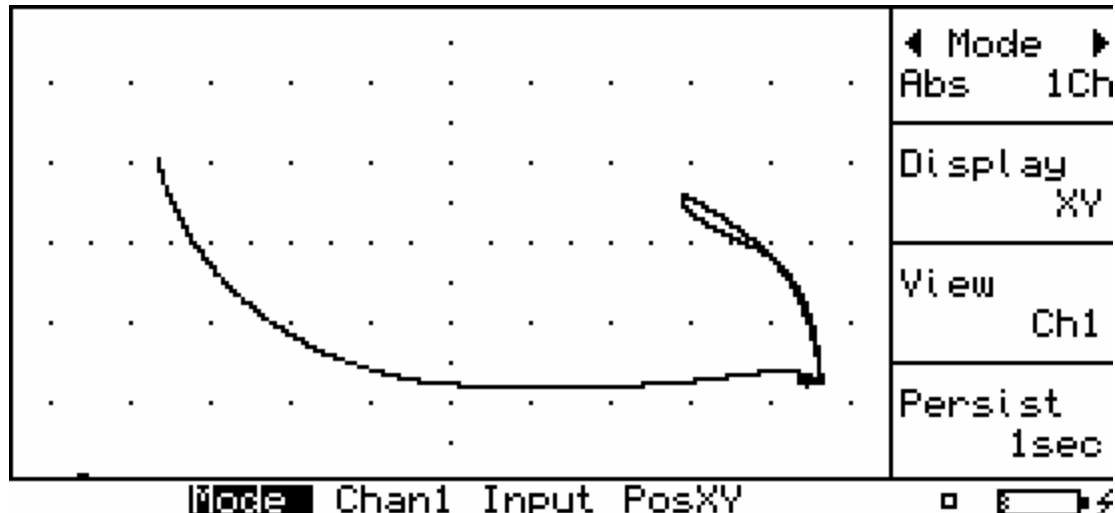


Figure B-21. HFEC calibration.

## ENGINEERING DEPARTMENT

SHEET	<b>B-32</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR: J. Bohler INSTRUMENT SN:  
 CODE: PROBE SN:  
 LOCATION: CAL BLOCK SN:  
 JOB NAME:  
 TEST COMMENTS: MFEC cal for 727pt6 53-30-27 fig. 17

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	02 : 11	08	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	200 Hz
X-pos 1	1H	65	X-pos 2	2H	0
Y-pos 1	1V	-35	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone
Top	TA	-14	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	20	Outer	OA	Off
Start	SA	9.0°	End	EA	315.0°
Analogue 1 Out	A1	Off	Analogue 2 Out	A2	Off
Persist	PE	1sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.A			

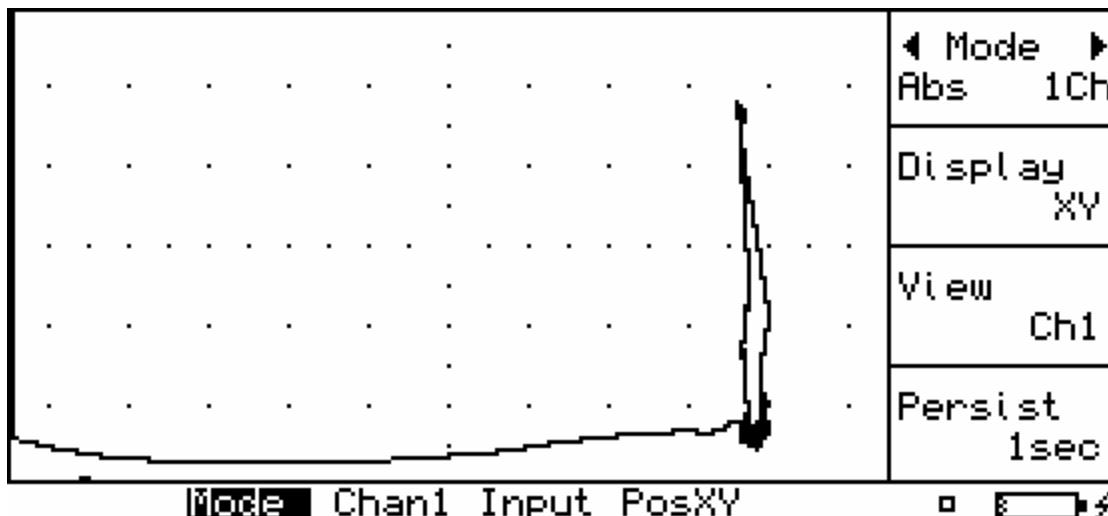


Figure B-22. MFEC calibration

## ENGINEERING DEPARTMENT

SHEET	<b>B-33</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR: INSTRUMENT SN:  
CODE: PROBE SN:  
LOCATION: CAL BLOCK SN:  
JOB NAME:  
TEST COMMENTS: MFEC str 4L at sta 400 rivet 5

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	14 : 49	09	Nov	'02	
Probe	PR	Standard	Mode	MO	Abs 1Ch
Display	DI	XY	View	VW	Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	200 Hz
X-pos 1	1H	65	X-pos 2	2H	0
Y-pos 1	1V	-35	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone
Top	TA	-14	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	20	Outer	OA	Off
Start	SA	9.0°	End	EA	315.0°
Analogue 1 Out	A1	Off	Analogue 2 Out	A2	Off
Persist	PE	10sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.A			

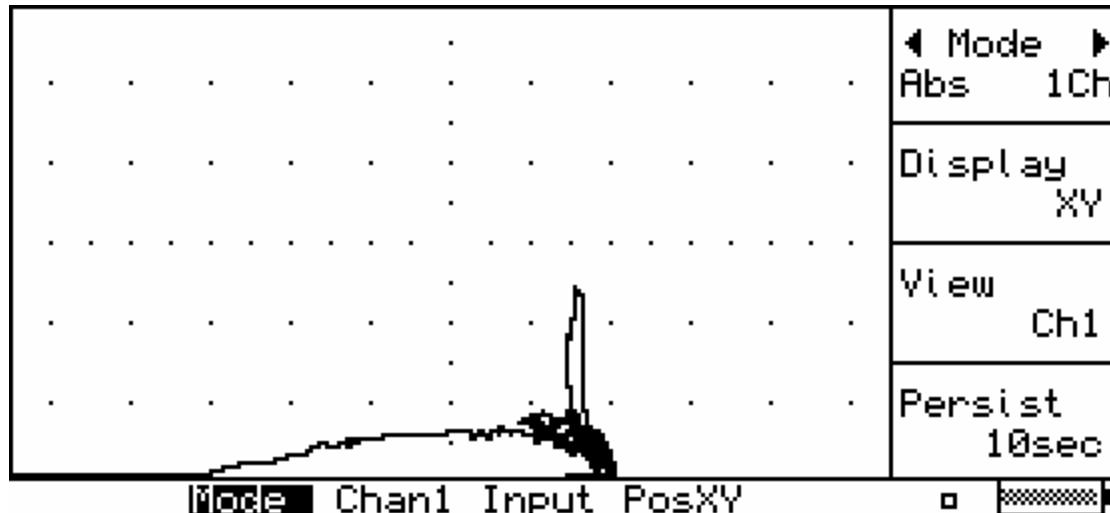


Figure B-23. MFEC indication stringer 4L at BS 400 rivet 5.

## ENGINEERING DEPARTMENT

SHEET	<b>B-34</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR: INSTRUMENT SN:  
CODE: PROBE SN:  
LOCATION: CAL BLOCK SN:  
JOB NAME:  
TEST COMMENTS: mfec str 41 sta 400 rivet 11

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	14 : 55	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs 1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	200 Hz
X-pos 1	1H	65	X-pos 2	2H	0
Y-pos 1	1V	-35	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone
Top	TA	-14	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	20	Outer	OA	Off
Start	SA	9.0°	End	EA	315.0°
Analogue 1 Out	A1	Off	Analogue 2 Out	A2	Off
Persist	PE	10sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.A			

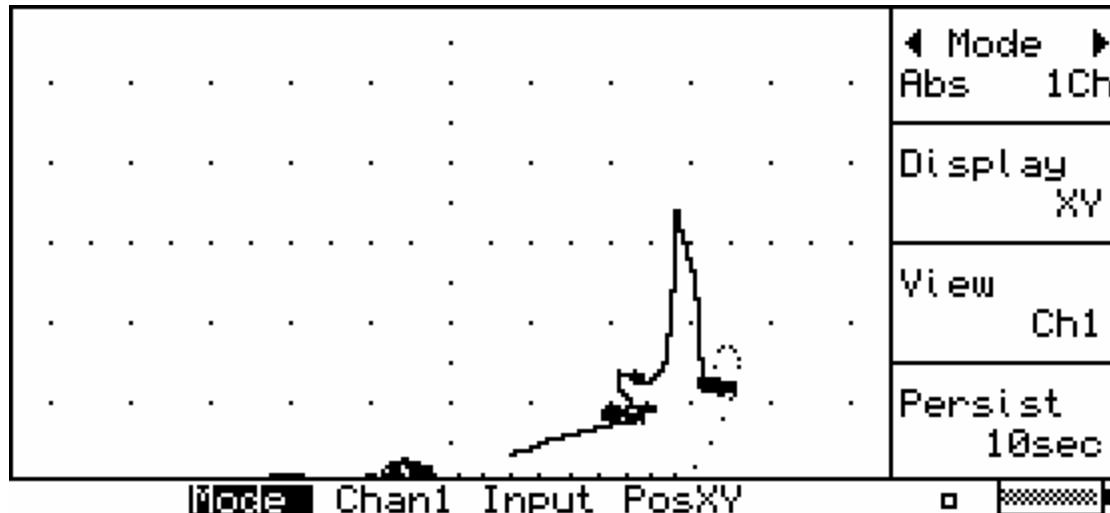


Figure B-24. MFEC indication stringer 4L at BS 400 rivet 11.

## ENGINEERING DEPARTMENT

SHEET	<b>B-35</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR:

INSTRUMENT SN:

CODE:  
 LOCATION:  
 JOB NAME:  
 TEST COMMENTS: mfec str 41 sta 400 rivet 10

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	15 : 00	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs 1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	200 Hz
X-pos 1	1H	65	X-pos 2	2H	0
Y-pos 1	1V	-35	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone
Top	TA	-14	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	20	Outer	OA	Off
Start	SA	9.0°	End	EA	315.0°
Analogue 1 Out	A1	Off	Analogue 2 Out	A2	Off
Persist	PE	10sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.A_			

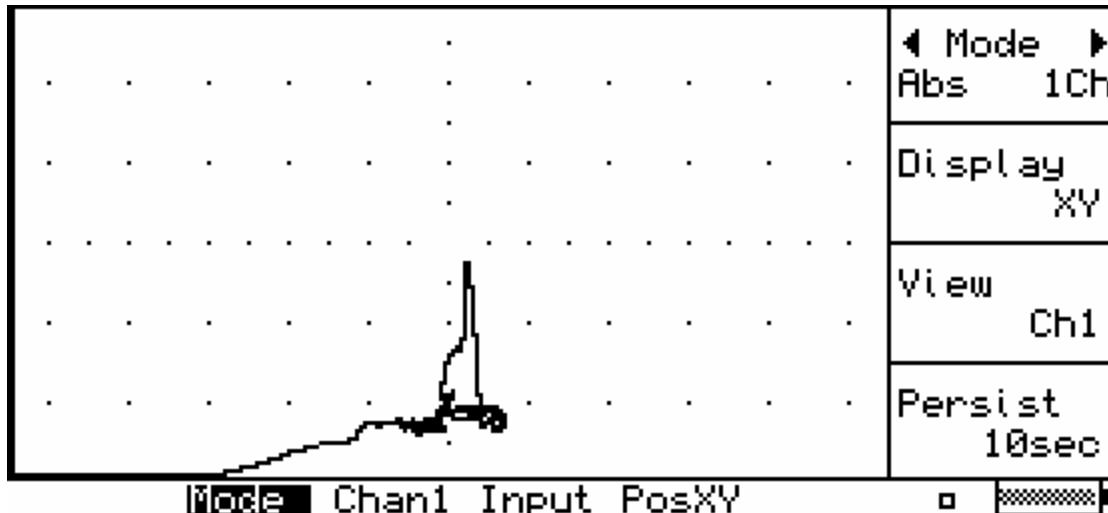


Figure B-25. MFEC indication stringer 4L at BS 400 rivet 10.

## ENGINEERING DEPARTMENT

SHEET	<b>B-36</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4l sta 400 rivet 15

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	15 : 02	09	Nov	'02	
Probe	PR	Standard	Mode	MO	Abs 1Ch
Display	DI	XY	View	VW	Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	200 Hz
X-pos 1	1H	65	X-pos 2	2H	0
Y-pos 1	1V	-35	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone
Top	TA	-14	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	20	Outer	OA	Off
Start	SA	9.0°	End	EA	315.0°
Analogue 1 Out	A1	Off	Analogue 2 Out	A2	Off
Persist	PE	10sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.A			

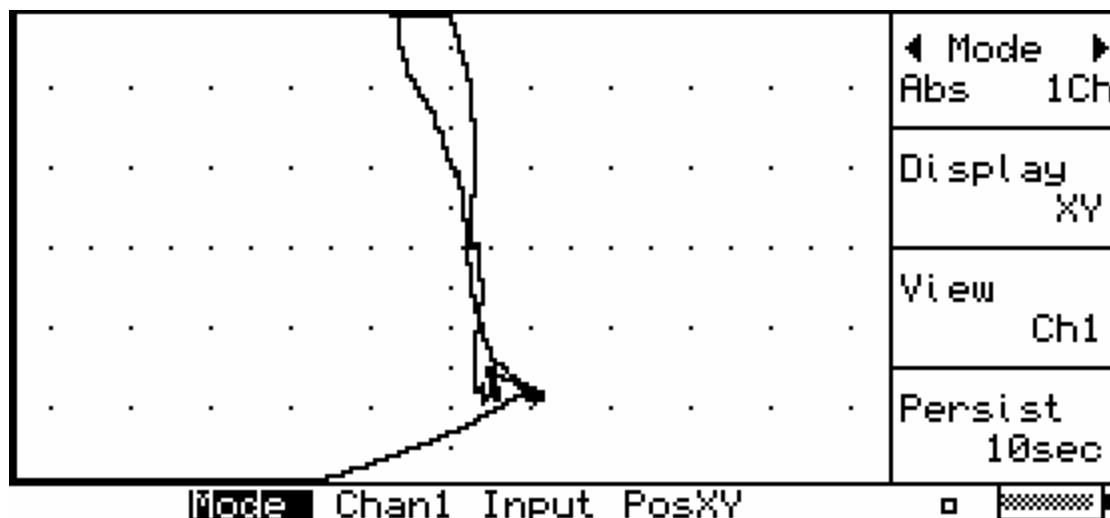


Figure B-26. MFEC indication stringer 4L at BS 400 rivet 15.

## ENGINEERING DEPARTMENT

SHEET	<b>B-37</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4l sta 420 rivet 3

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	15 : 04	09	Nov	'02	
Probe	PR	Standard	Mode	MO	Abs 1Ch
Display	DI	XY	View	VW	Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	200 Hz
X-pos 1	1H	65	X-pos 2	2H	0
Y-pos 1	1V	-35	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone
Top	TA	-14	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	20	Outer	OA	Off
Start	SA	9.0°	End	EA	315.0°
Analogue 1 Out	A1	Off	Analogue 2 Out	A2	Off
Persist	PE	10sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.A			

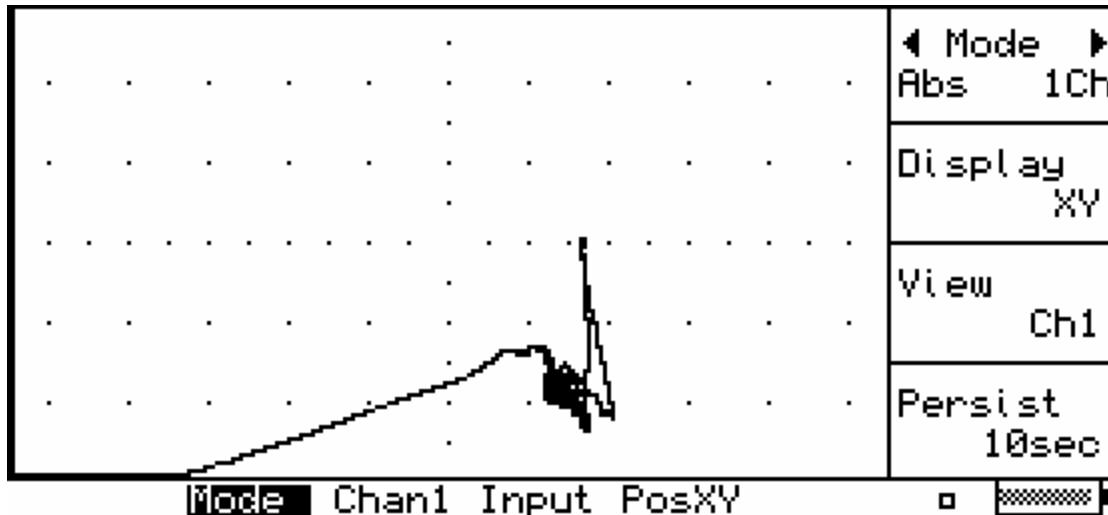


Figure B-27. MFEC indication stringer 4L at BS 420 rivet 3.

## ENGINEERING DEPARTMENT

SHEET	<b>B-38</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4l sta 420 rivet 4

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	15 : 06	09	Nov	'02	
Probe	PR	Standard	Mode	MO	Abs 1Ch
Display	DI	XY	View	VW	Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	200 Hz
X-pos 1	1H	65	X-pos 2	2H	0
Y-pos 1	1V	-35	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone
Top	TA	-14	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	20	Outer	OA	Off
Start	SA	9.0°	End	EA	315.0°
Analogue 1 Out	A1	Off	Analogue 2 Out	A2	Off
Persist	PE	10sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.A			

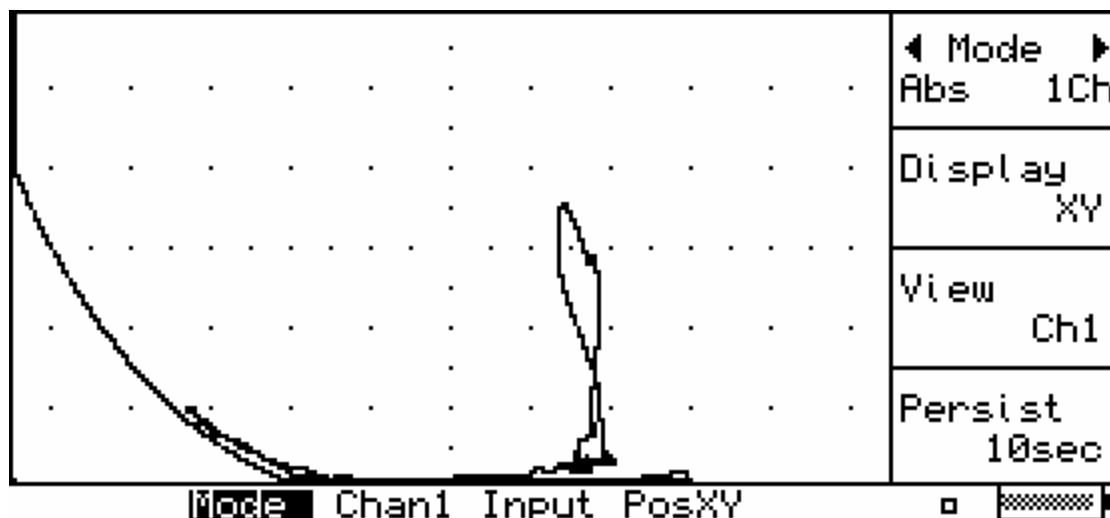


Figure B-28. MFEC indication stringer 4L at BS 420 rivet 4.

## ENGINEERING DEPARTMENT

SHEET	<b>B-39</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4l sta 420 rivet 5

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	15 : 07	09	Nov	'02	
Probe	PR	Standard	Mode	MO	Abs 1Ch
Display	DI	XY	View	VW	Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	200 Hz
X-pos 1	1H	65	X-pos 2	2H	0
Y-pos 1	1V	-35	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone
Top	TA	-14	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	20	Outer	OA	Off
Start	SA	9.0°	End	EA	315.0°
Analogue 1 Out	A1	Off	Analogue 2 Out	A2	Off
Persist	PE	10sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.A			

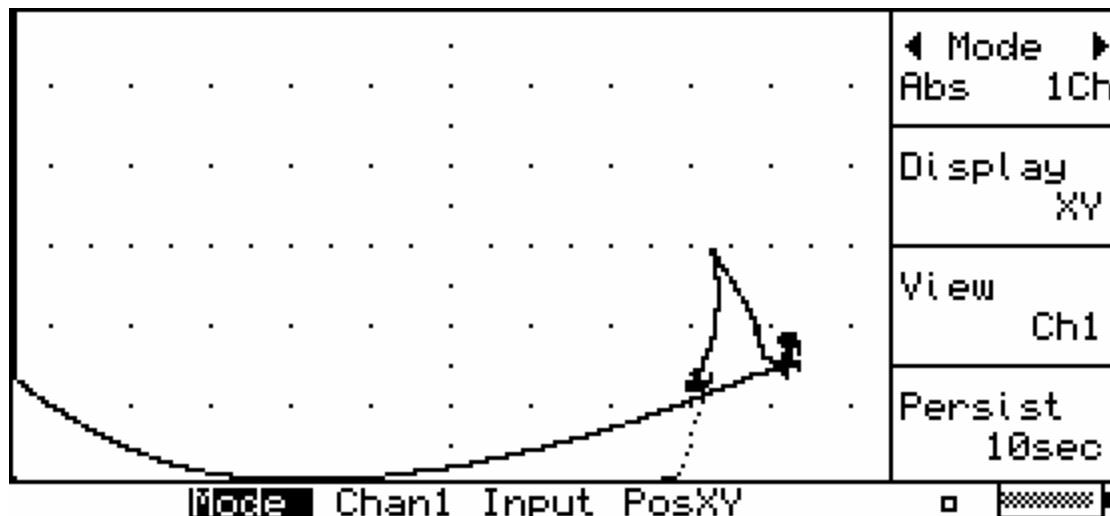


Figure B-29. MFEC indication stringer 4L at BS 420 rivet 5.

## ENGINEERING DEPARTMENT

SHEET	<b>B-40</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4l sta 420 rivet 6

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	15 : 09	09	Nov	'02	
Probe	PR	Standard	Mode	MO	Abs 1Ch
Display	DI	XY	View	VW	Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	200 Hz
X-pos 1	1H	65	X-pos 2	2H	0
Y-pos 1	1V	-35	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone
Top	TA	-14	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	20	Outer	OA	Off
Start	SA	9.0°	End	EA	315.0°
Analogue 1 Out	A1	Off	Analogue 2 Out	A2	Off
Persist	PE	10sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.A			

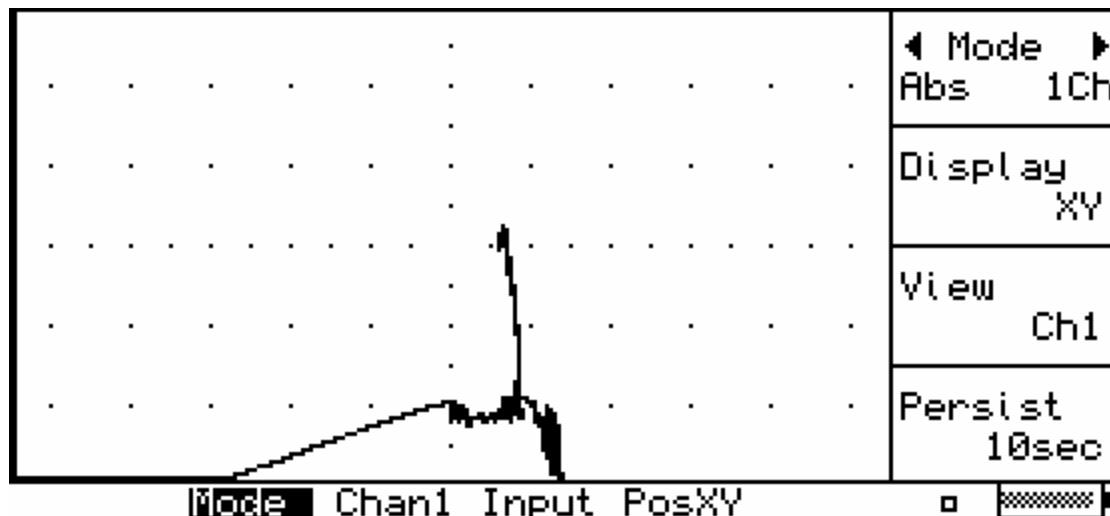


Figure B-30. MFEC indication stringer 4L at BS 420 rivet 6.

## ENGINEERING DEPARTMENT

SHEET	<b>B-41</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 41 sta 420 rivet 10

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

Dump	15 : 10	09	Nov	'02	
Probe	PR	Standard	Mode	MO	Abs 1Ch
Display	DI	XY	View	VW	Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	200 Hz
X-pos 1	1H	65	X-pos 2	2H	0
Y-pos 1	1V	-35	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone
Top	TA	-14	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	20	Outer	OA	Off
Start	SA	9.0°	End	EA	315.0°
Analogue 1 Out	A1	Off	Analogue 2 Out	A2	Off
Persist	PE	10sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.A			

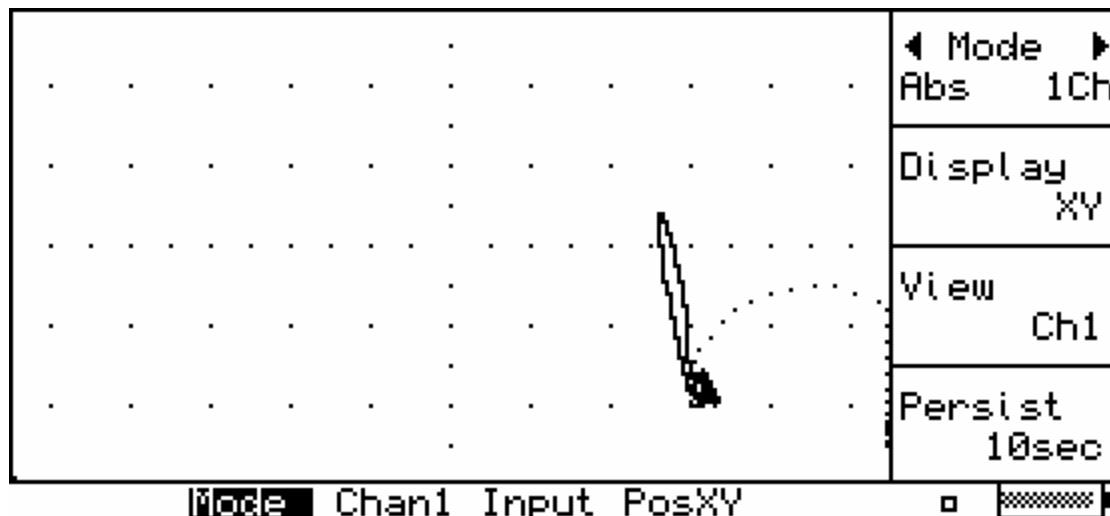


Figure B-31. MFEC indication stringer 4L at BS 420 rivet 10.

## ENGINEERING DEPARTMENT

SHEET	<b>B-42</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR: INSTRUMENT SN:  
CODE: PROBE SN:  
LOCATION: CAL BLOCK SN:  
JOB NAME:  
TEST COMMENTS: MFEC str 4R at sta 420 rivet 11 aft side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	13 : 01	14	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs 1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	200 Hz
X-pos 1	1H	65	X-pos 2	2H	0
Y-pos 1	1V	-35	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone
Top	TA	-14	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	20	Outer	OA	Off
Start	SA	9.0°	End	EA	315.0°
Analogue 1 Out	A1	Off	Analogue 2 Out	A2	Off
Persist	PE	0.5sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.A			

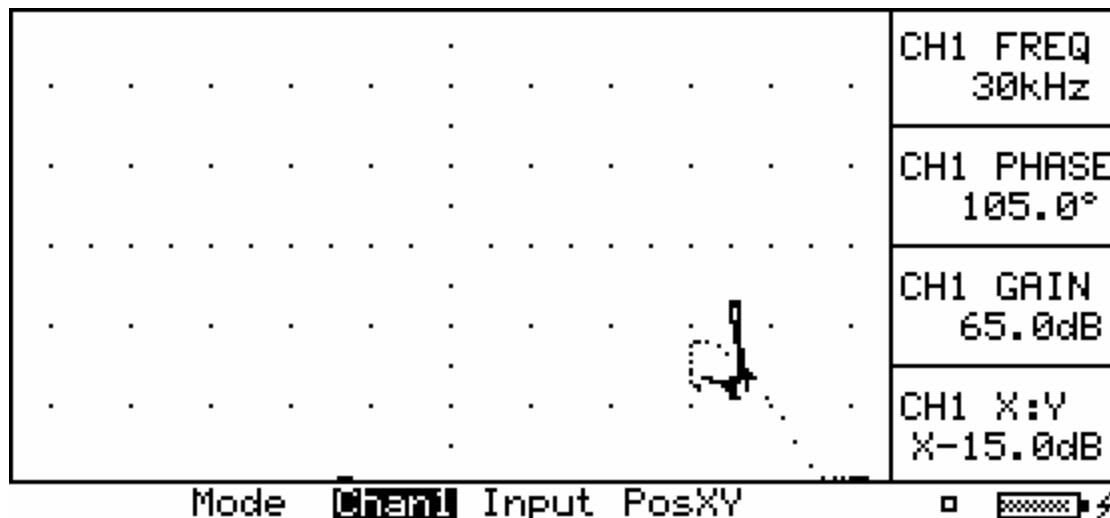


Figure B-32. MFEC indication stringer 4R at BS 400 rivet 11 aft side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-43</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR: INSTRUMENT SN:  
 CODE: PROBE SN:  
 LOCATION: CAL BLOCK SN:  
 JOB NAME:  
 TEST COMMENTS: MFEC str 4R at sta 440 rivet 10 fwd side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	13 : 03	14	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs 1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	200 Hz
X-pos 1	1H	65	X-pos 2	2H	0
Y-pos 1	1V	-35	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone
Top	TA	-14	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	20	Outer	OA	Off
Start	SA	9.0°	End	EA	315.0°
Analogue 1 Out	A1	Off	Analogue 2 Out	A2	Off
Persist	PE	0.5sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.A			

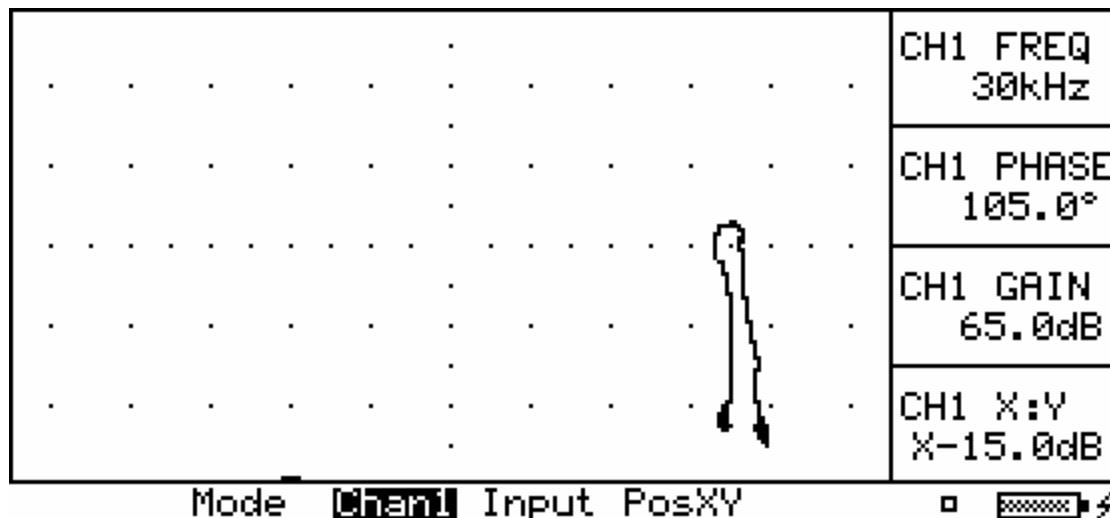


Figure B-33. MFEC indication stringer 4R at BS 440 rivet 10 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-44</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR: INSTRUMENT SN:  
CODE: PROBE SN:  
LOCATION: CAL BLOCK SN:  
JOB NAME:  
TEST COMMENTS: MFEC str 4R at sta 480 rivet 1 aft side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	13 : 04	14	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs 1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	200 Hz
X-pos 1	1H	65	X-pos 2	2H	0
Y-pos 1	1V	-35	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone
Top	TA	-14	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	20	Outer	OA	Off
Start	SA	9.0°	End	EA	315.0°
Analogue 1 Out	A1	Off	Analogue 2 Out	A2	Off
Persist	PE	0.5sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.A			

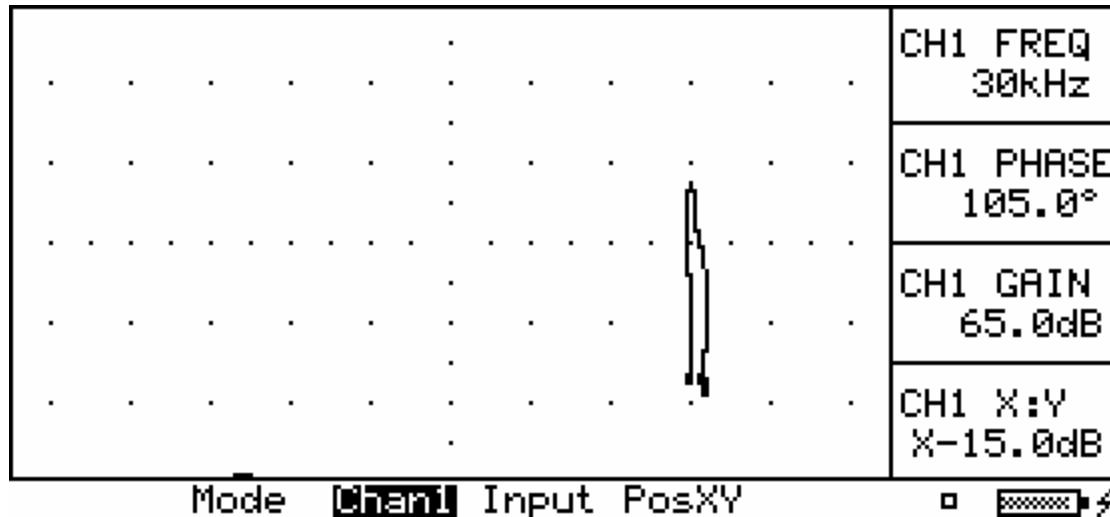


Figure B-34. MFEC indication stringer 4R at BS 480 rivet 1 aft side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-45</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR: INSTRUMENT SN:  
CODE: PROBE SN:  
LOCATION: CAL BLOCK SN:  
JOB NAME:  
TEST COMMENTS: MFEC str 4R at sta 500 rivet 9 fwd side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	13 : 06	14	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs 1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	200 Hz
X-pos 1	1H	65	X-pos 2	2H	0
Y-pos 1	1V	-35	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone
Top	TA	-14	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	20	Outer	OA	Off
Start	SA	9.0°	End	EA	315.0°
Analogue 1 Out	A1	Off	Analogue 2 Out	A2	Off
Persist	PE	0.5sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.A			

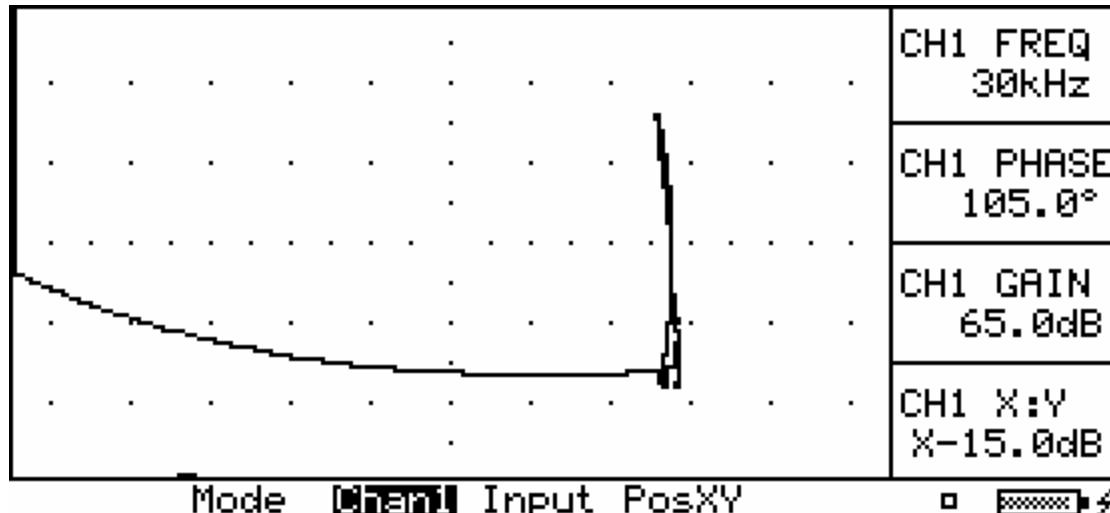


Figure B-35. MFEC indication stringer 4R at BS 500 rivet 9 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-46</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR: INSTRUMENT SN:  
CODE: PROBE SN:  
LOCATION: CAL BLOCK SN:  
JOB NAME:  
TEST COMMENTS: MFEC str 4R at sta 500 rivet 9 aft side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	13 : 08	14	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs 1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	200 Hz
X-pos 1	1H	65	X-pos 2	2H	0
Y-pos 1	1V	-35	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone
Top	TA	-14	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	20	Outer	OA	Off
Start	SA	9.0°	End	EA	315.0°
Analogue 1 Out	A1	Off	Analogue 2 Out	A2	Off
Persist	PE	0.5sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.A			

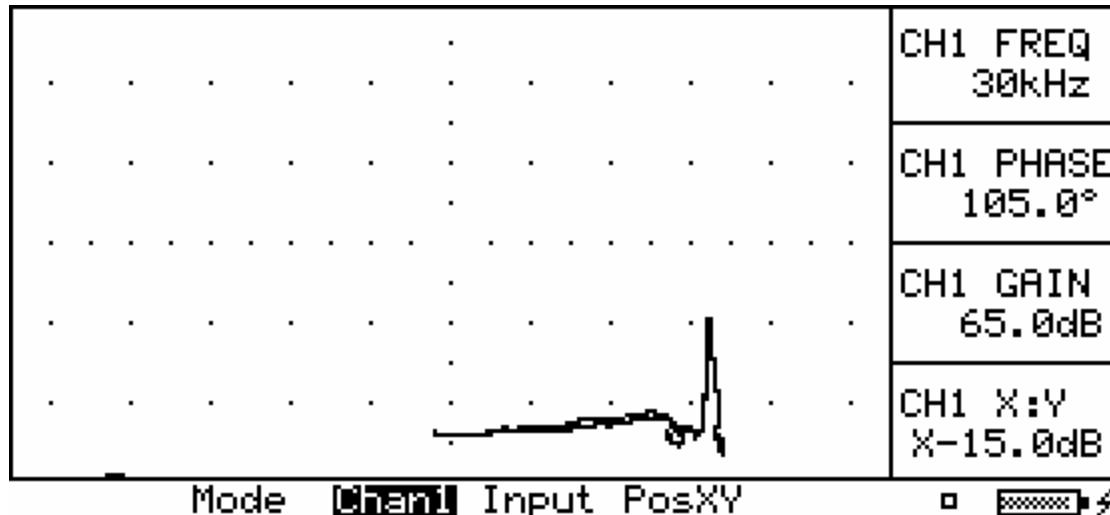


Figure B-36. MFEC indication stringer 4R at BS 500 rivet 9 aft side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-47</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR: INSTRUMENT SN:  
CODE: PROBE SN:  
LOCATION: CAL BLOCK SN:  
JOB NAME:  
TEST COMMENTS: MFEC str 4R at sta 500 rivet 10 fwd side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	13 : 10	14	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs 1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	200 Hz
X-pos 1	1H	65	X-pos 2	2H	0
Y-pos 1	1V	-35	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone
Top	TA	-14	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	20	Outer	OA	Off
Start	SA	9.0°	End	EA	315.0°
Analogue 1 Out	A1	Off	Analogue 2 Out	A2	Off
Persist	PE	0.5sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.A			

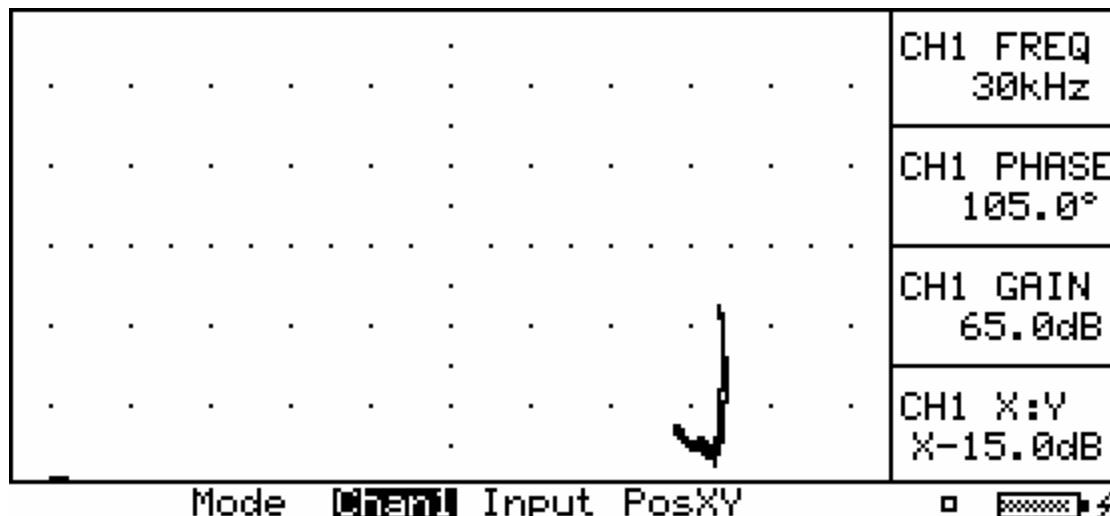


Figure B-37. MFEC indication stringer 4R at BS 500 rivet 10 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-48</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR: INSTRUMENT SN:  
CODE: PROBE SN:  
LOCATION: CAL BLOCK SN:  
JOB NAME:  
TEST COMMENTS: MFEC str 4R at sta 500 rivet 11 fwd side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	13 : 16	14	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	200 Hz
X-pos 1	1H	65	X-pos 2	2H	0
Y-pos 1	1V	-35	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone
Top	TA	-14	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	20	Outer	OA	Off
Start	SA	9.0°	End	EA	315.0°
Analogue 1 Out	A1	Off	Analogue 2 Out	A2	Off
Persist	PE	0.5sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.A			

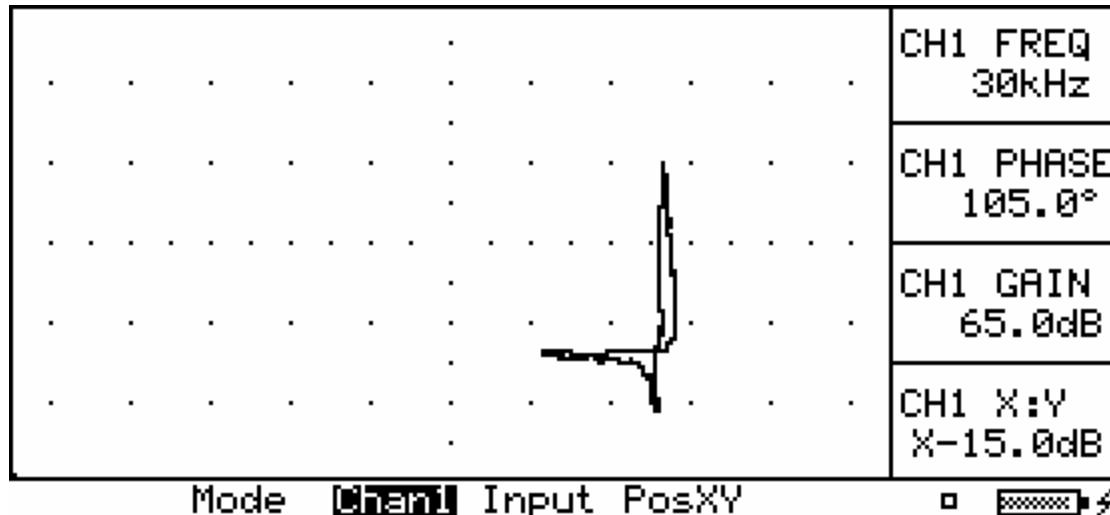


Figure B-38. MFEC indication stringer 4R at BS 500 rivet 11 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-49</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS:

mfec str 4r sta 520 rivet 14 fwd

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	15 : 02	09	Nov	'02	
Probe	PR	Standard	Mode	MO	Abs 1Ch
Display	DI	XY	View	VW	Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.6°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	1sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

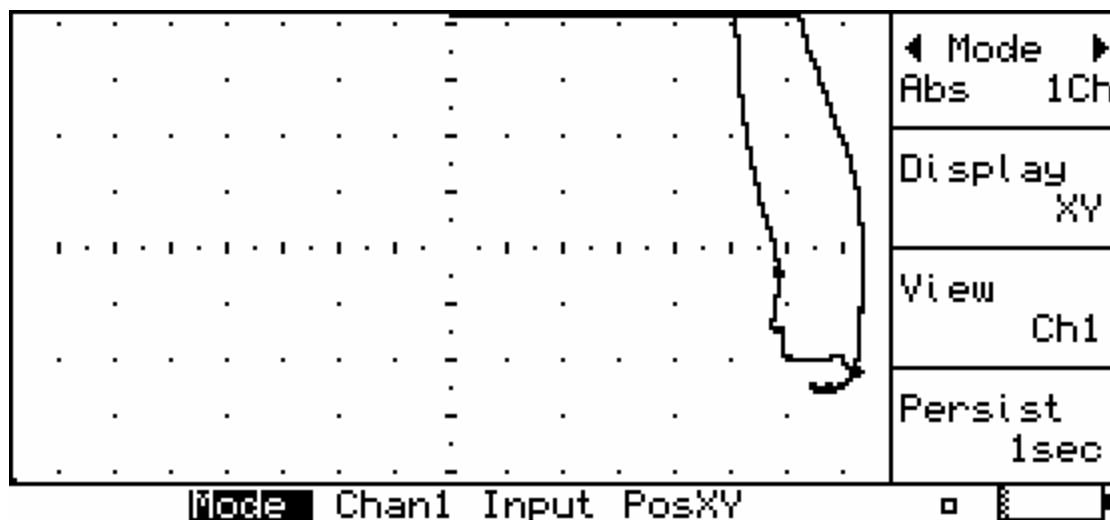


Figure B-39. MFEC indication stringer 4R at BS 520 rivet 3 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-50</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR: INSTRUMENT SN:  
CODE: PROBE SN:  
LOCATION: CAL BLOCK SN:  
JOB NAME:  
TEST COMMENTS: MFEC str 4R at sta 520 rivet 8 aft side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	13 : 21	14	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	200 Hz
X-pos 1	1H	65	X-pos 2	2H	0
Y-pos 1	1V	-35	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone
Top	TA	-14	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	20	Outer	OA	Off
Start	SA	9.0°	End	EA	315.0°
Analogue 1 Out	A1	Off	Analogue 2 Out	A2	Off
Persist	PE	0.5sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.A			

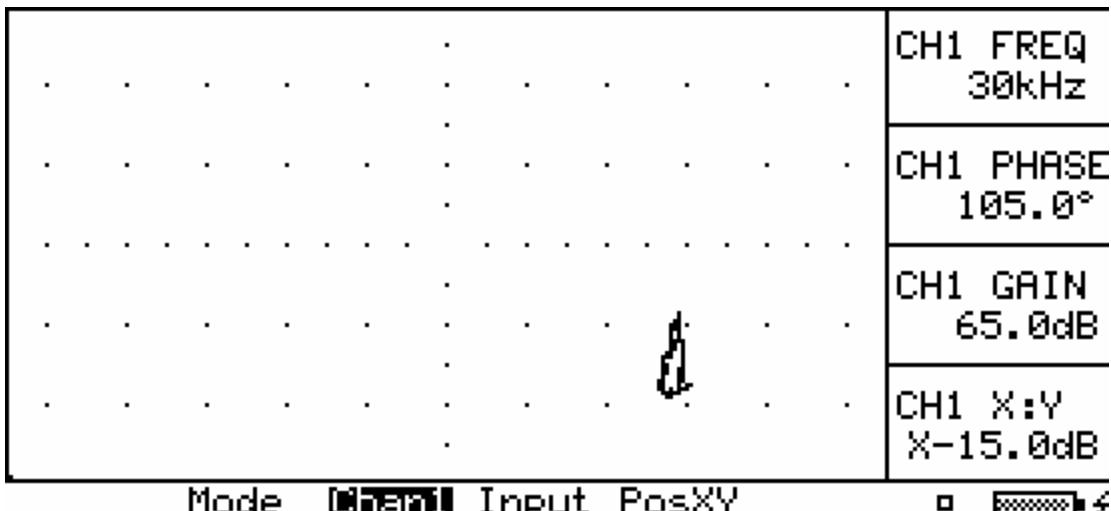


Figure B-40. MFEC indication stringer 4R at BS 520 rivet 8 aft side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-51</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR: INSTRUMENT SN:  
CODE: PROBE SN:  
LOCATION: CAL BLOCK SN:  
JOB NAME:  
TEST COMMENTS: MFEC str 4R at sta 520 rivet 9 aft side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	13 : 22	14	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs 1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	200 Hz
X-pos 1	1H	65	X-pos 2	2H	0
Y-pos 1	1V	-35	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone
Top	TA	-14	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	20	Outer	OA	Off
Start	SA	9.0°	End	EA	315.0°
Analogue 1 Out	A1	Off	Analogue 2 Out	A2	Off
Persist	PE	0.5sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.A			

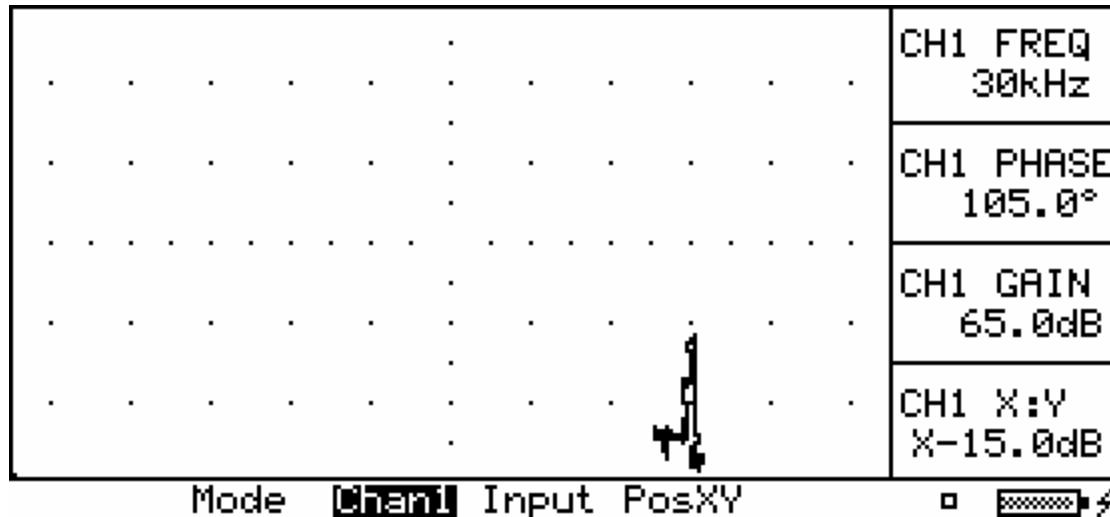


Figure B-41. MFEC indication stringer 4R at BS 520 rivet 9 aft side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-52</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR: INSTRUMENT SN:  
CODE: PROBE SN:  
LOCATION: CAL BLOCK SN:  
JOB NAME:  
TEST COMMENTS: MFEC str 4R at sta 520 rivet 10 fwd side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	13 : 24	14	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs 1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	200 Hz
X-pos 1	1H	65	X-pos 2	2H	0
Y-pos 1	1V	-35	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone
Top	TA	-14	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	20	Outer	OA	Off
Start	SA	9.0°	End	EA	315.0°
Analogue 1 Out	A1	Off	Analogue 2 Out	A2	Off
Persist	PE	0.5sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.A			

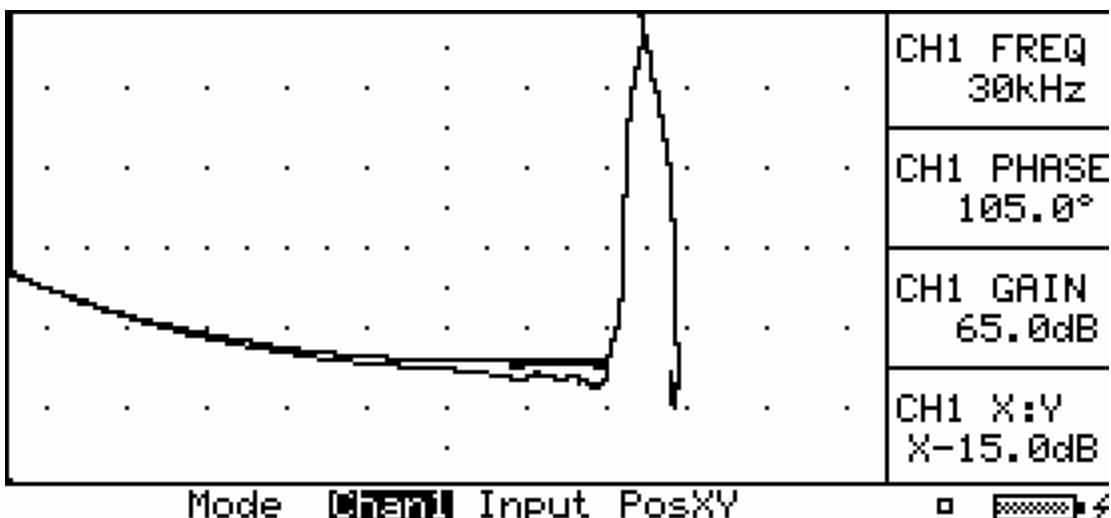


Figure B-42. MFEC indication stringer 4R at BS 520 rivet 10 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-53</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR: INSTRUMENT SN:  
CODE: PROBE SN:  
LOCATION: CAL BLOCK SN:  
JOB NAME:  
TEST COMMENTS: MFEC str 4R at sta 520 rivet 10 aft side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	13 : 26	14	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs 1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	200 Hz
X-pos 1	1H	65	X-pos 2	2H	0
Y-pos 1	1V	-35	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone
Top	TA	-14	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	20	Outer	OA	Off
Start	SA	9.0°	End	EA	315.0°
Analogue 1 Out	A1	Off	Analogue 2 Out	A2	Off
Persist	PE	0.5sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.A			

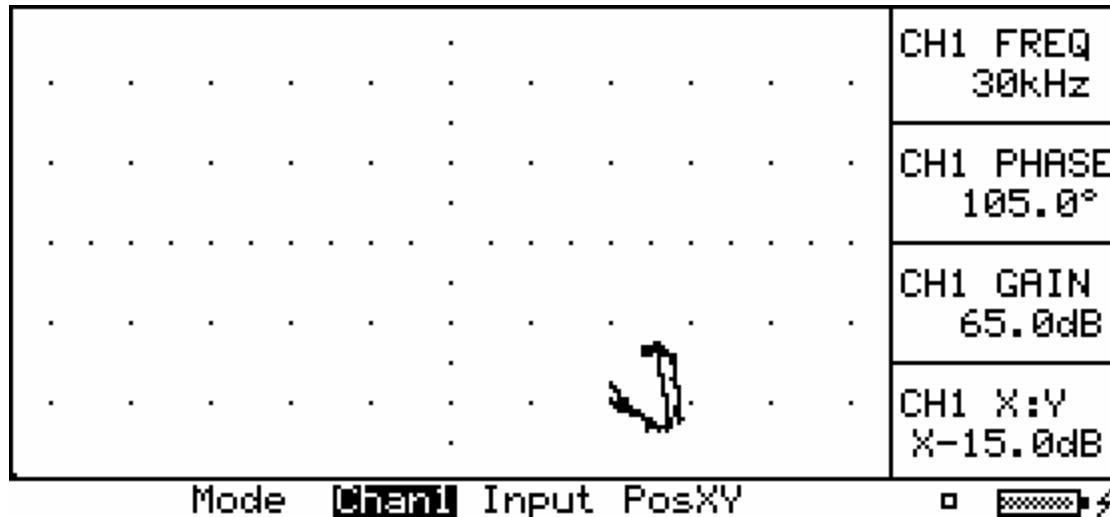


Figure B-43. MFEC indication stringer 4R at BS 520 rivet 10 aft side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-54</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR: INSTRUMENT SN:  
CODE: PROBE SN:  
LOCATION: CAL BLOCK SN:  
JOB NAME:  
TEST COMMENTS: MFEC str 4R at sta 520 rivet 11 fwd side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	13 : 28	14	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs 1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	200 Hz
X-pos 1	1H	65	X-pos 2	2H	0
Y-pos 1	1V	-35	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone
Top	TA	-14	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	20	Outer	OA	Off
Start	SA	9.0°	End	EA	315.0°
Analogue 1 Out	A1	Off	Analogue 2 Out	A2	Off
Persist	PE	0.5sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.A			

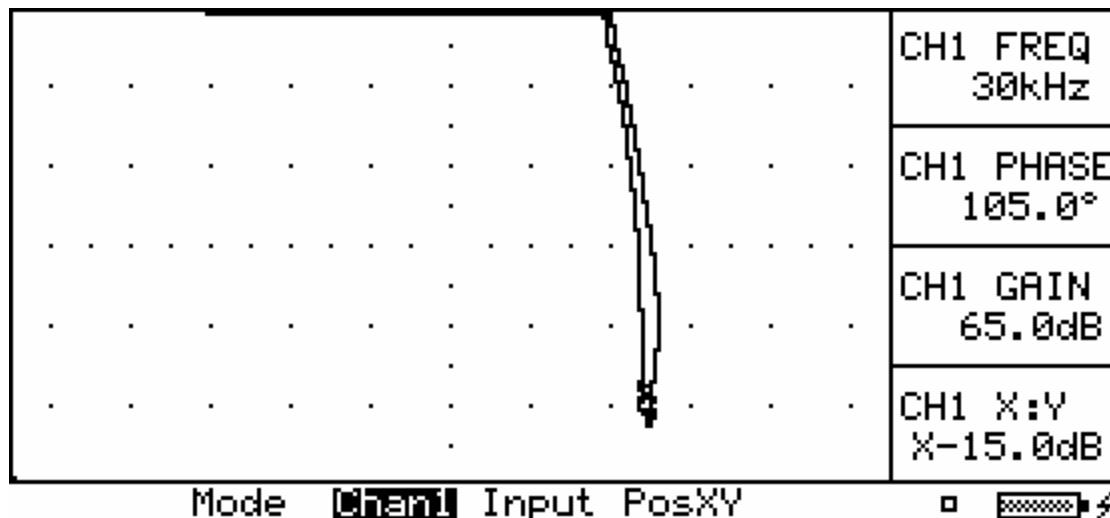


Figure B-44. MFEC indication stringer 4R at BS 520 rivet 11 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-55</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR: INSTRUMENT SN:  
CODE: PROBE SN:  
LOCATION: CAL BLOCK SN:  
JOB NAME:  
TEST COMMENTS: MFEC str 4R at sta 520 rivet 11 aft side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	13 : 30	14	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	200 Hz
X-pos 1	1H	65	X-pos 2	2H	0
Y-pos 1	1V	-35	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone
Top	TA	-14	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	20	Outer	OA	Off
Start	SA	9.0°	End	EA	315.0°
Analogue 1 Out	A1	Off	Analogue 2 Out	A2	Off
Persist	PE	0.5sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.A			

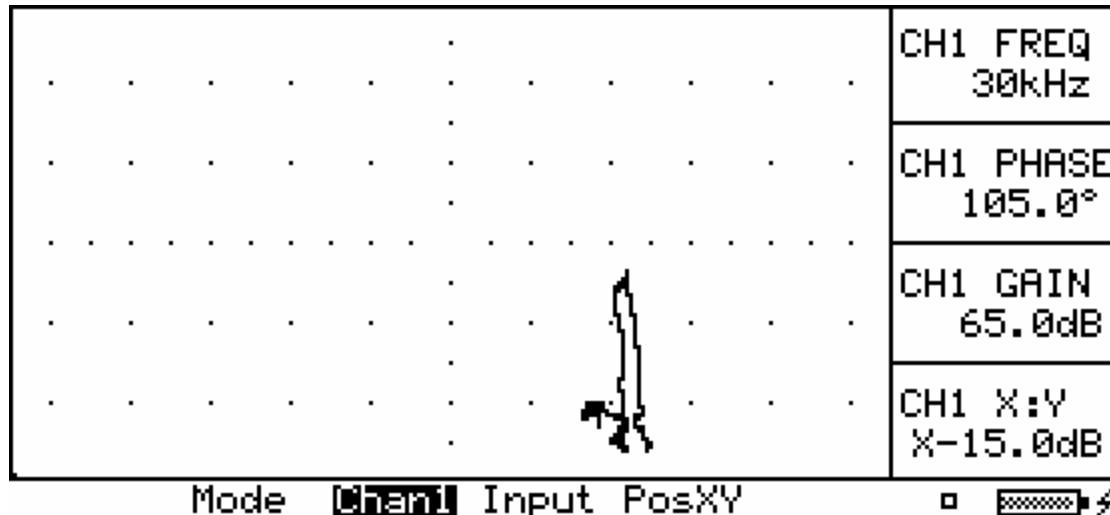


Figure B-45. MFEC indication stringer 4R at BS 520 rivet 11 aft side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-56</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR: INSTRUMENT SN:  
CODE: PROBE SN:  
LOCATION: CAL BLOCK SN:  
JOB NAME:  
TEST COMMENTS: MFEC str 4R at sta 520 rivet 13 fwd side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	13 : 34	14	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	200 Hz
X-pos 1	1H	65	X-pos 2	2H	0
Y-pos 1	1V	-35	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone
Top	TA	-14	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	20	Outer	OA	Off
Start	SA	9.0°	End	EA	315.0°
Analogue 1 Out	A1	Off	Analogue 2 Out	A2	Off
Persist	PE	0.5sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.A			

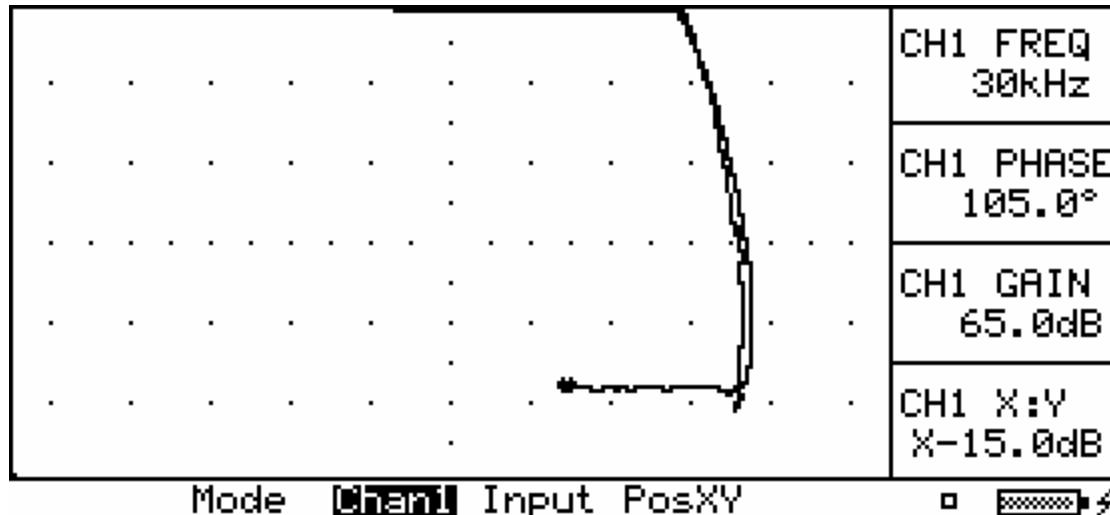


Figure B-46. MFEC indication stringer 4R at BS 520 rivet 13 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-57</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR: INSTRUMENT SN:  
CODE: PROBE SN:  
LOCATION: CAL BLOCK SN:  
JOB NAME:  
TEST COMMENTS: MFEC str 4R at sta 520 rivet 13 aft side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	13 : 35	14	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs 1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	200 Hz
X-pos 1	1H	65	X-pos 2	2H	0
Y-pos 1	1V	-35	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone
Top	TA	-14	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	20	Outer	OA	Off
Start	SA	9.0°	End	EA	315.0°
Analogue 1 Out	A1	Off	Analogue 2 Out	A2	Off
Persist	PE	0.5sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.A			

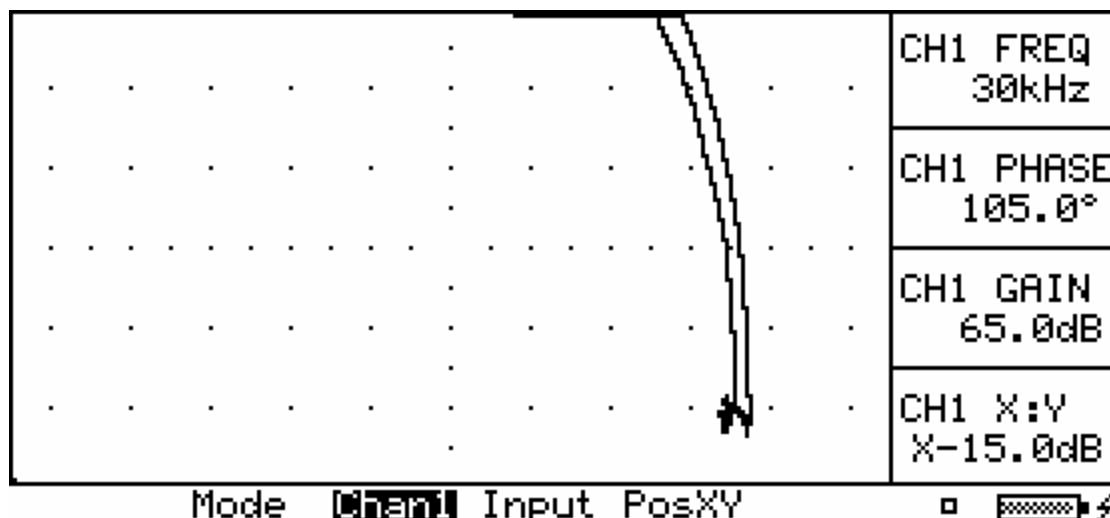


Figure B-47. MFEC indication stringer 4R at BS 520 rivet 13 aft side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-58</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR:

INSTRUMENT SN:

CODE:  
 LOCATION:  
 JOB NAME:  
 TEST COMMENTS: mfec str 4r sta 520 rivet 14 fwd

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	15 : 02	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs 1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.6°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	1sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

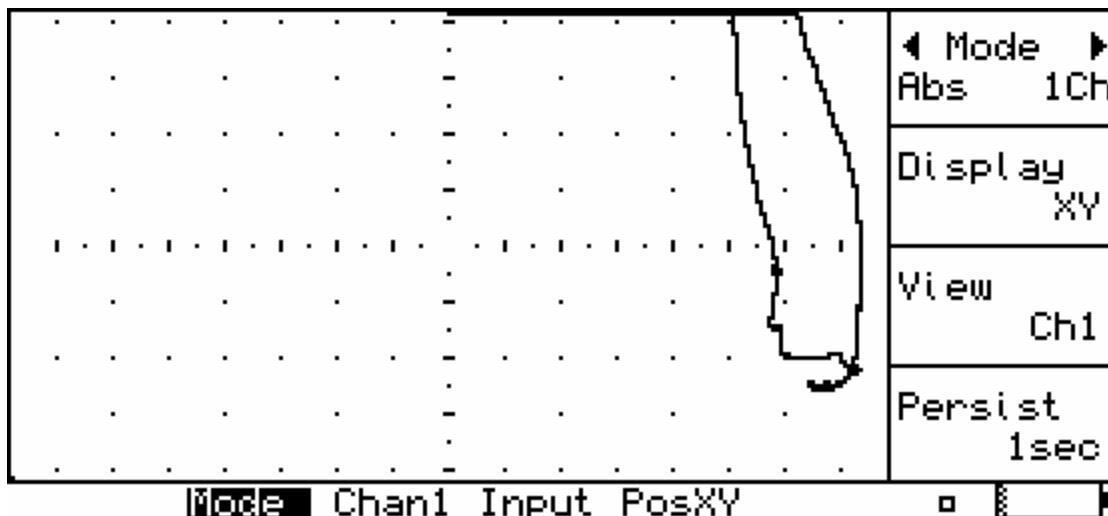


Figure B-48. MFEC indication stringer 4R at BS 520 rivet 14 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-59</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 540 rivet 3 fwd

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

Dump 15 : 00 09 Nov '02

Probe	PR	Standard	Mode	MO	Abs	1Ch
Display	DI	XY	View	VW		Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz	
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB	
Ch1 Phase	1P	101.6°	Ch2 Phase	2P	0.0°	
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB	
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB	
Hi-pass	HP	DC	Lo-pass	LP	100 Hz	
X-pos 1	1H	60	X-pos 2	2H	1	
Y-pos 1	1V	-32	Y-pos 2	2V	0	
Alarm Shape	AT	Off	Apply to	AA	Both	
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent	
Top	TA	10	Left	LA	Off	
Right	RA	Off	Bottom	BA	Off	
Inner	IA	All Off	Outer	OA	55	
Start	SA	2.0°	End	EA	5.0°	
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y	
Persist	PE	1sec	Sweep	SD	1sec	
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V	
Inp. Gain	IP	0dB	Bal. Load	LO	120uH	
Graticule	GR	Rect.C_				

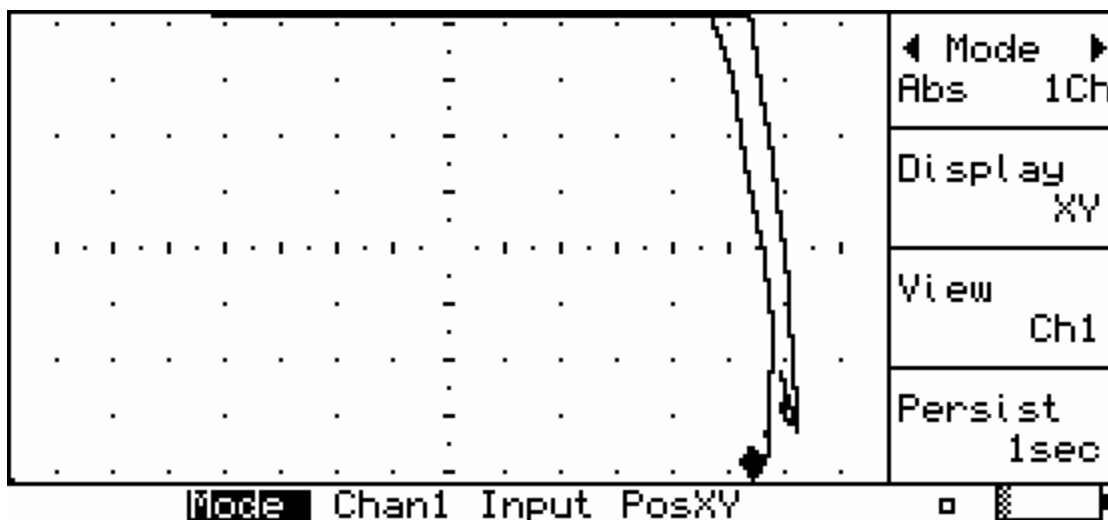


Figure B-49. MFEC indication stringer 4R at BS 540 rivet 3 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-60</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 540 rivet 3 aft

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

Dump	15 : 01	09	Nov	'02	
Probe	PR	Standard	Mode	MO	Abs 1Ch
Display	DI	XY	View	VW	Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.6°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	1sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

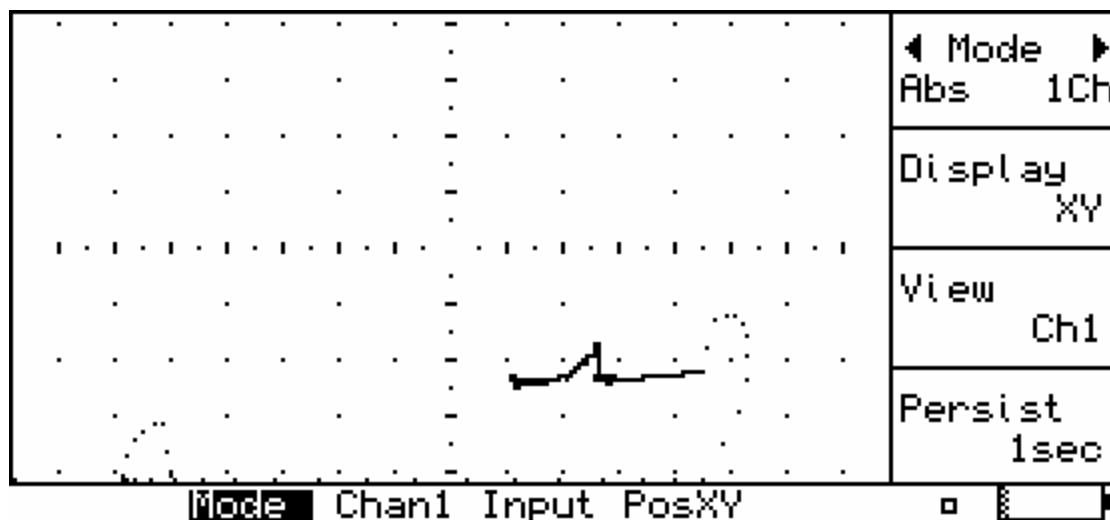


Figure B-50. MFEC indication stringer 4R at BS 540 rivet 3 aft side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-61</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS:

mfec str 4r sta 54- rivet 4 fwd

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

Dump	14 : 56	09	Nov	'02	
Probe	PR	Standard	Mode	MO	Abs 1Ch
Display	DI	XY	View	VW	Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.6°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	1sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

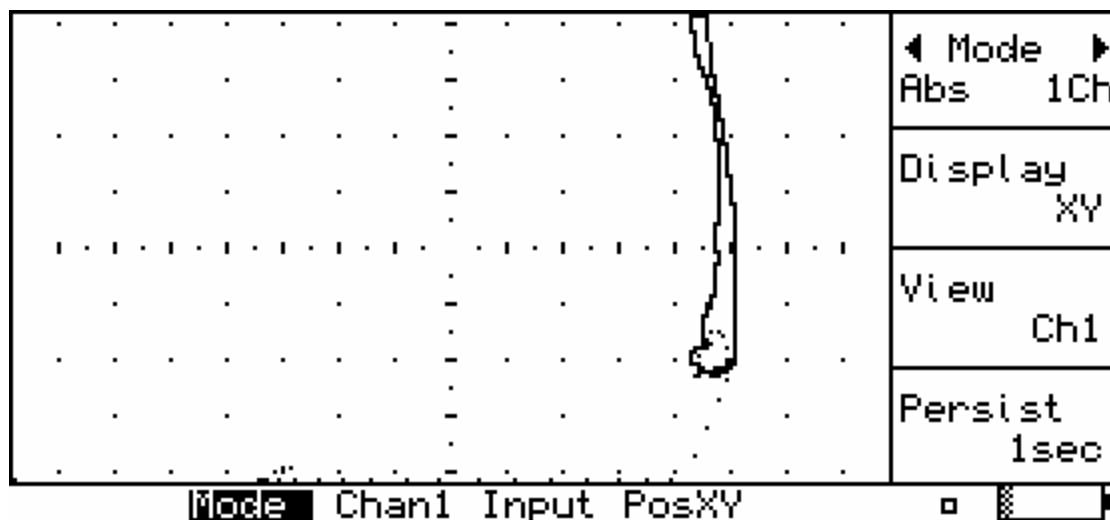


Figure B-51. MFEC indication stringer 4R at BS 540 rivet 4 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-62</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 540 rivet 4 aft

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	14 : 58	09	Nov	'02	
Probe	PR	Standard	Mode	MO	Abs 1Ch
Display	DI	XY	View	VW	Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.6°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	1sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

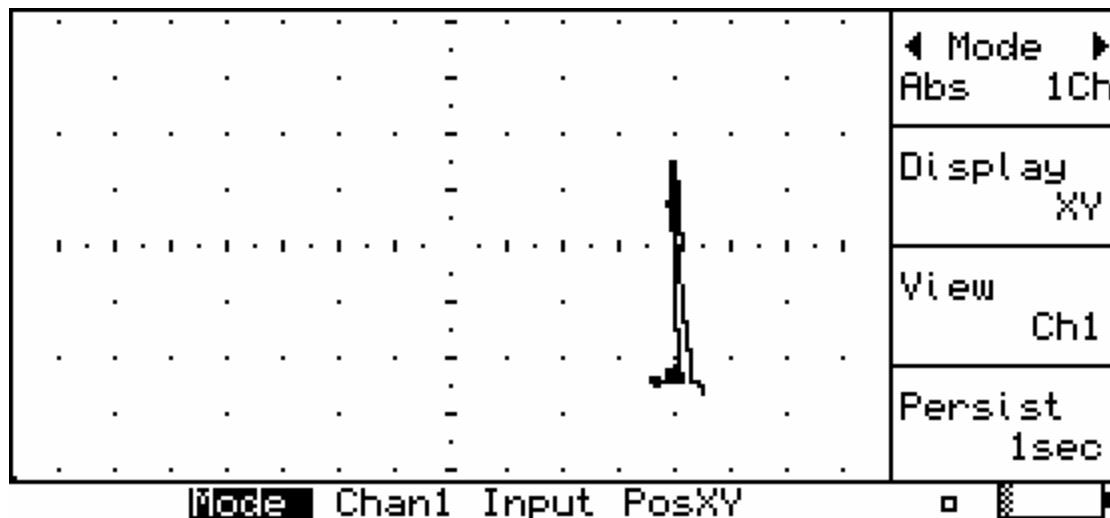


Figure B-52. MFEC indication stringer 4R at BS 540 rivet 4 aft side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-63</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 540 rivet 5 fwd

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	14 : 53	09	Nov	'02	
Probe	PR	Standard	Mode	MO	Abs 1Ch
Display	DI	XY	View	VW	Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.6°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	1sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

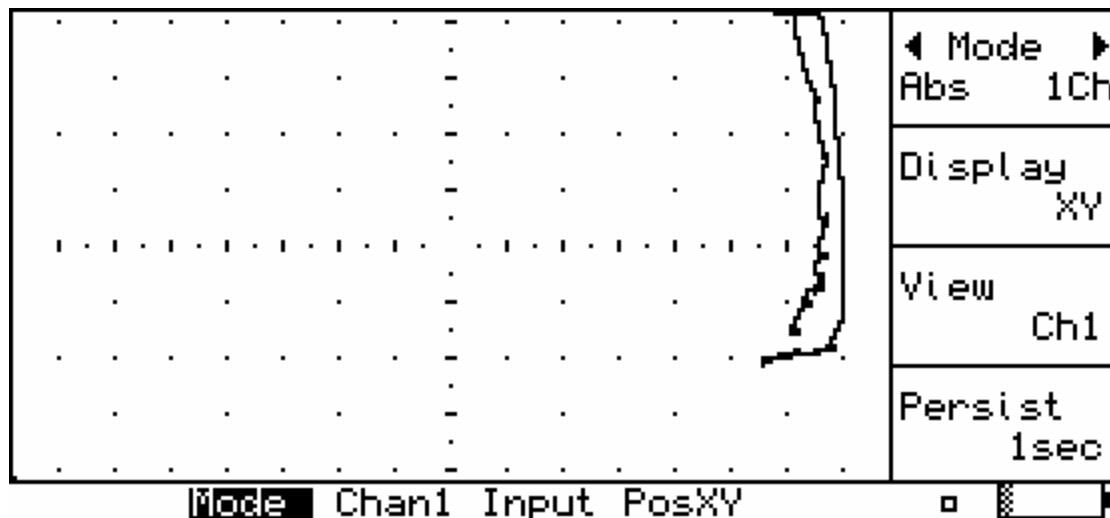


Figure B-53. MFEC indication stringer 4R at BS 540 rivet 5 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-64</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 540 rivet 5 aft

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	14 : 54	09	Nov	'02	
Probe	PR	Standard	Mode	MO	Abs 1Ch
Display	DI	XY	View	VW	Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.6°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	1sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

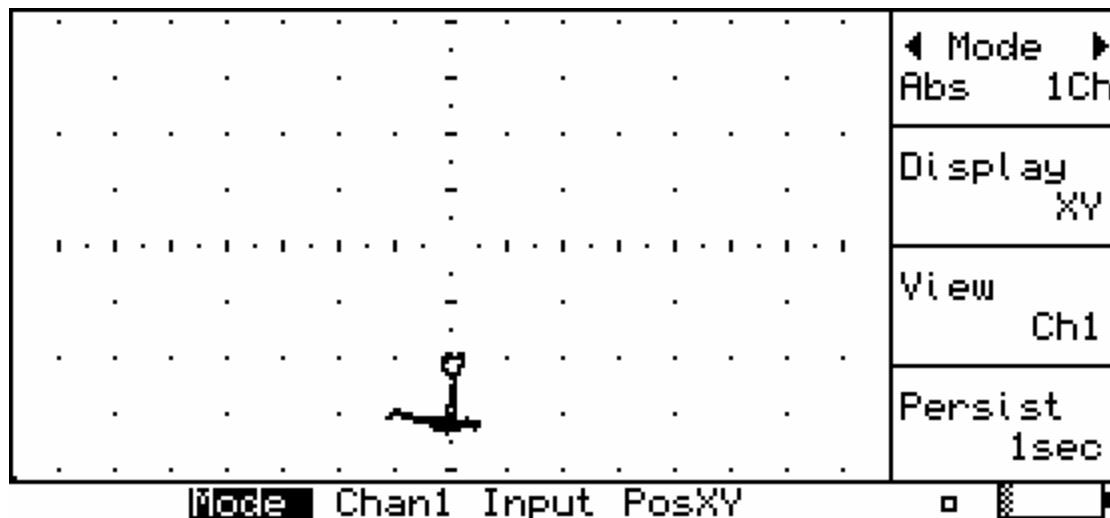


Figure B-54. MFEC indication stringer 4R at BS 540 rivet 5 aft side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-65</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 540 rivet 6 fwd

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

Dump 14 : 51 09 Nov '02

Probe	PR	Standard	Mode	MO	Abs	1Ch
Display	DI	XY	View	VW		Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz	
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB	
Ch1 Phase	1P	101.6°	Ch2 Phase	2P	0.0°	
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB	
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB	
Hi-pass	HP	DC	Lo-pass	LP	100 Hz	
X-pos 1	1H	60	X-pos 2	2H	1	
Y-pos 1	1V	-32	Y-pos 2	2V	0	
Alarm Shape	AT	Off	Apply to	AA	Both	
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent	
Top	TA	10	Left	LA	Off	
Right	RA	Off	Bottom	BA	Off	
Inner	IA	All Off	Outer	OA	55	
Start	SA	2.0°	End	EA	5.0°	
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y	
Persist	PE	1sec	Sweep	SD	1sec	
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V	
Inp. Gain	IP	0dB	Bal. Load	LO	120uH	
Graticule	GR	Rect.C_				

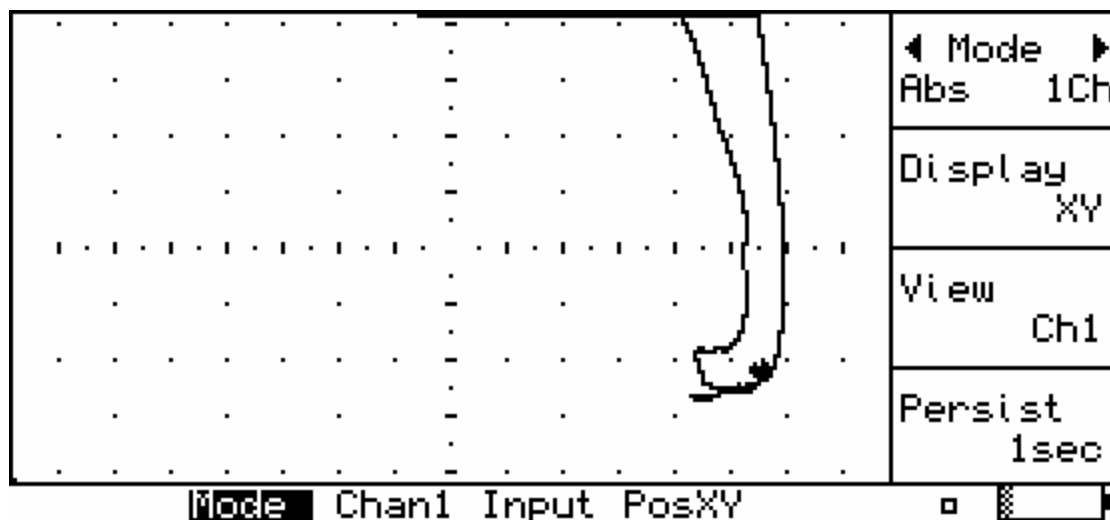


Figure B-55. MFEC indication stringer 4R at BS 540 rivet 6 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-66</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 540 rivet 6 aft

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	14 : 52	09	Nov	'02	
Probe	PR	Standard	Mode	MO	Abs 1Ch
Display	DI	XY	View	VW	Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.6°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	1sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

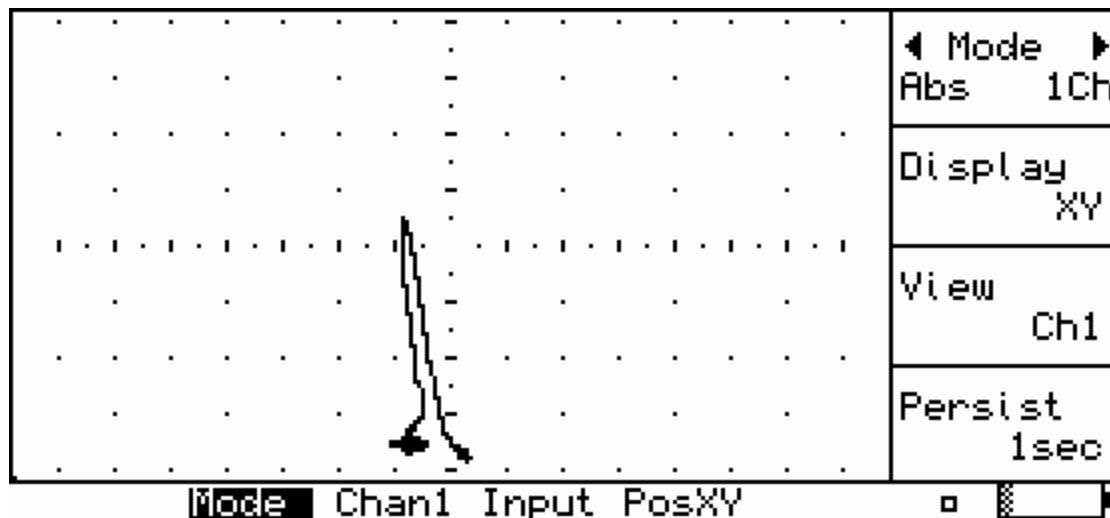


Figure B-56. MFEC indication stringer 4R at BS 540 rivet 6 aft side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-67</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 540 rivet 7 fwd

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	14 : 49	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs 1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.6°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	1sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

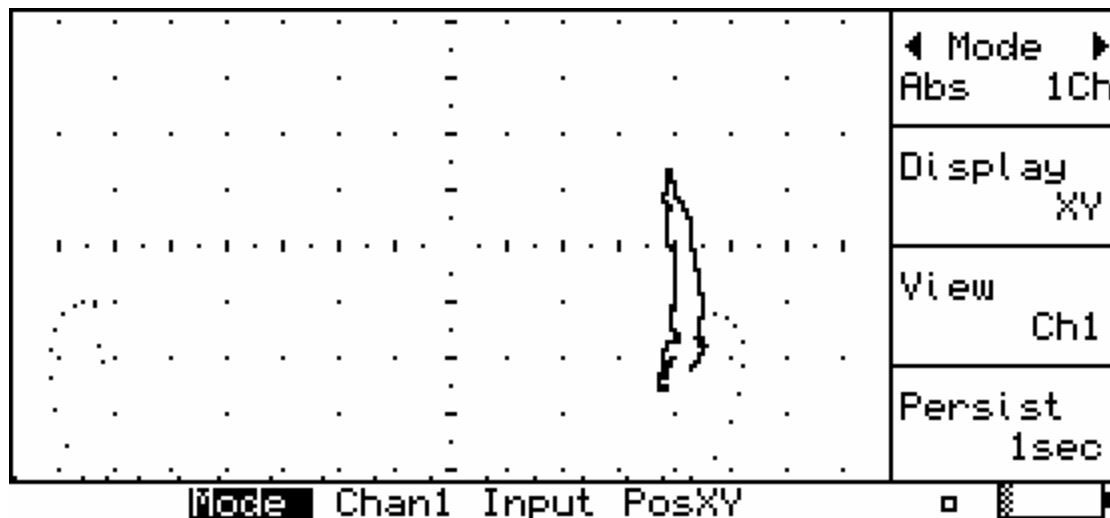


Figure B-57. MFEC indication stringer 4R at BS 540 rivet 7 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-68</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 540 rivet 7 aft

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

Dump 14 : 50 09 Nov '02

Probe	PR	Standard	Mode	MO	Abs	1Ch
Display	DI	XY	View	VW		Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz	
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB	
Ch1 Phase	1P	101.6°	Ch2 Phase	2P	0.0°	
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB	
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB	
Hi-pass	HP	DC	Lo-pass	LP	100 Hz	
X-pos 1	1H	60	X-pos 2	2H	1	
Y-pos 1	1V	-32	Y-pos 2	2V	0	
Alarm Shape	AT	Off	Apply to	AA	Both	
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent	
Top	TA	10	Left	LA	Off	
Right	RA	Off	Bottom	BA	Off	
Inner	IA	All Off	Outer	OA	55	
Start	SA	2.0°	End	EA	5.0°	
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y	
Persist	PE	1sec	Sweep	SD	1sec	
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V	
Inp. Gain	IP	0dB	Bal. Load	LO	120uH	
Graticule	GR	Rect.C_				

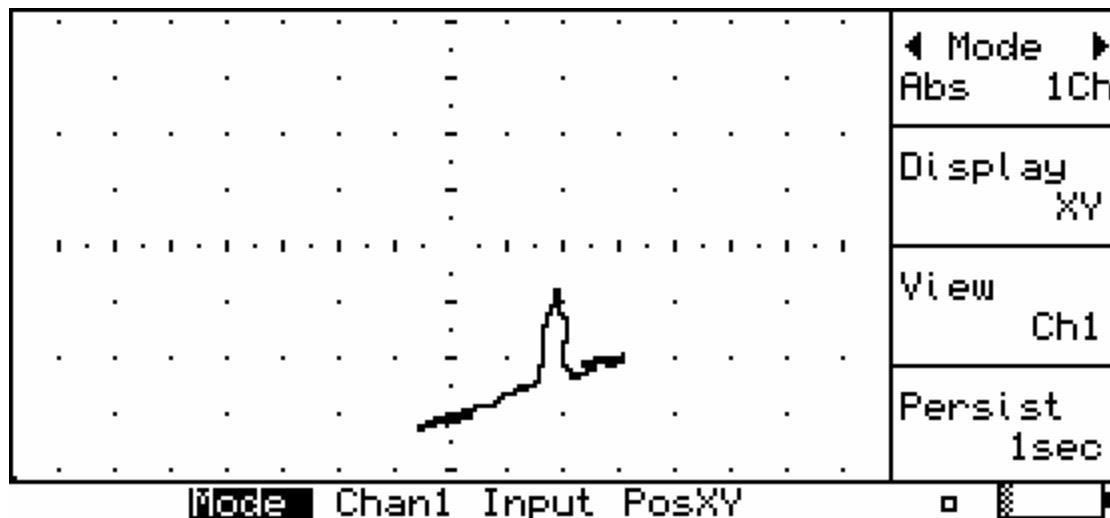


Figure B-58. MFEC indication stringer 4R at BS 540 rivet 7 aft side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-69</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 540 rivet 8 fwd

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

Dump 14 : 47 09 Nov '02

Probe	PR	Standard	Mode	MO	Abs	1Ch
Display	DI	XY	View	VW		Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz	
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB	
Ch1 Phase	1P	101.6°	Ch2 Phase	2P	0.0°	
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB	
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB	
Hi-pass	HP	DC	Lo-pass	LP	100 Hz	
X-pos 1	1H	60	X-pos 2	2H	1	
Y-pos 1	1V	-32	Y-pos 2	2V	0	
Alarm Shape	AT	Off	Apply to	AA	Both	
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent	
Top	TA	10	Left	LA	Off	
Right	RA	Off	Bottom	BA	Off	
Inner	IA	All Off	Outer	OA	55	
Start	SA	2.0°	End	EA	5.0°	
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y	
Persist	PE	1sec	Sweep	SD	1sec	
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V	
Inp. Gain	IP	0dB	Bal. Load	LO	120uH	
Graticule	GR	Rect.C_				

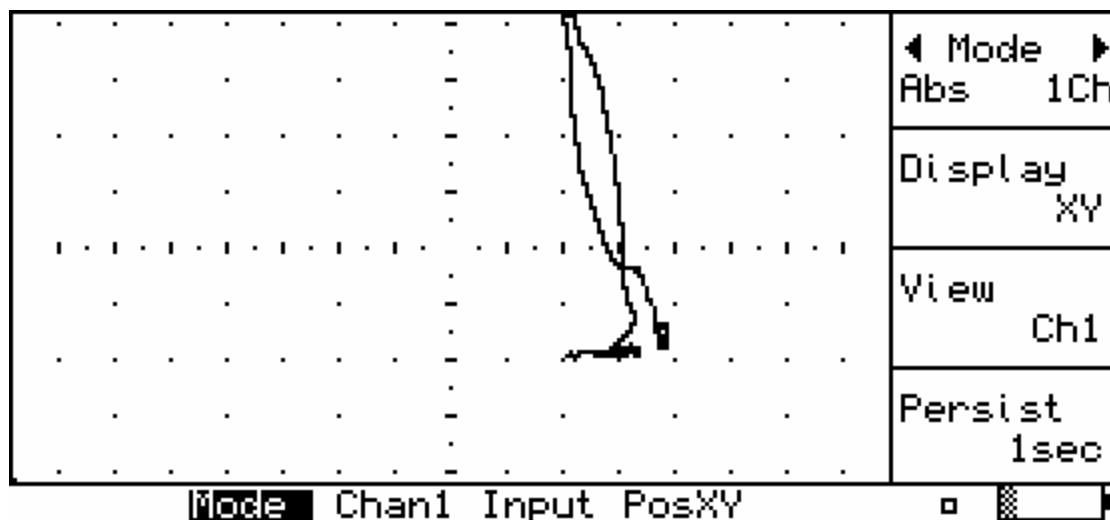


Figure B-59. MFEC indication stringer 4R at BS 540 rivet 8 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-70</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 540 rivet 8 aft

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump 14 : 48 09 Nov '02

Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.6°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	1sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

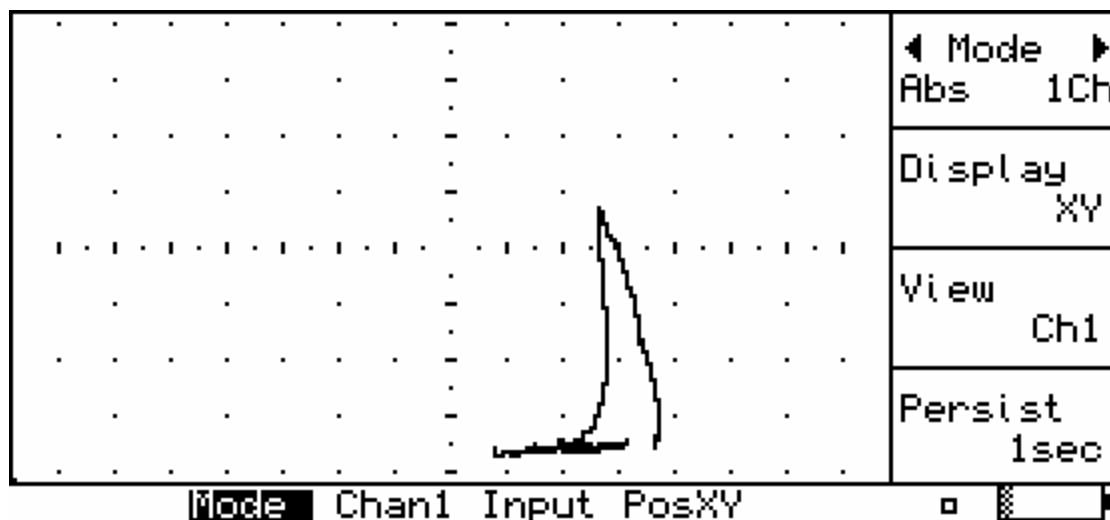


Figure B-60. MFEC indication stringer 4R at BS 540 rivet 8 aft side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-71</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 540 rivet 9 fwd

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	14 : 46	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.6°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	1sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			



Figure B-61. MFEC indication stringer 4R at BS 540 rivet 9 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-72</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS:mfec str 4r sta 540 rivet 10 fwd

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

Dump	14 : 44	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs 1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.6°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	1sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

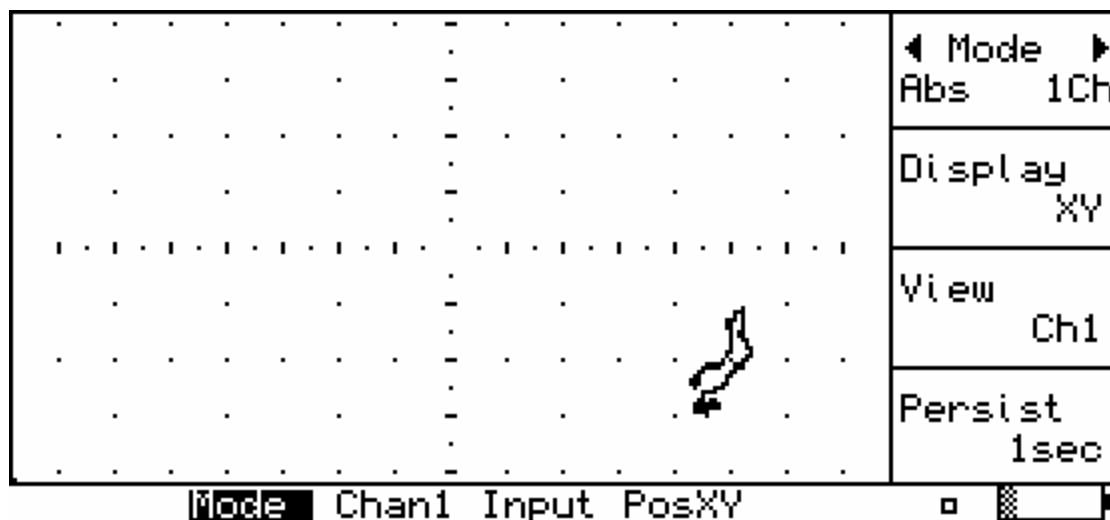


Figure B-62. MFEC indication stringer 4R at BS 540 rivet 10 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-73</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 540 rivet 10 aft

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

Dump 14 : 44 09 Nov '02

Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.6°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	1sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

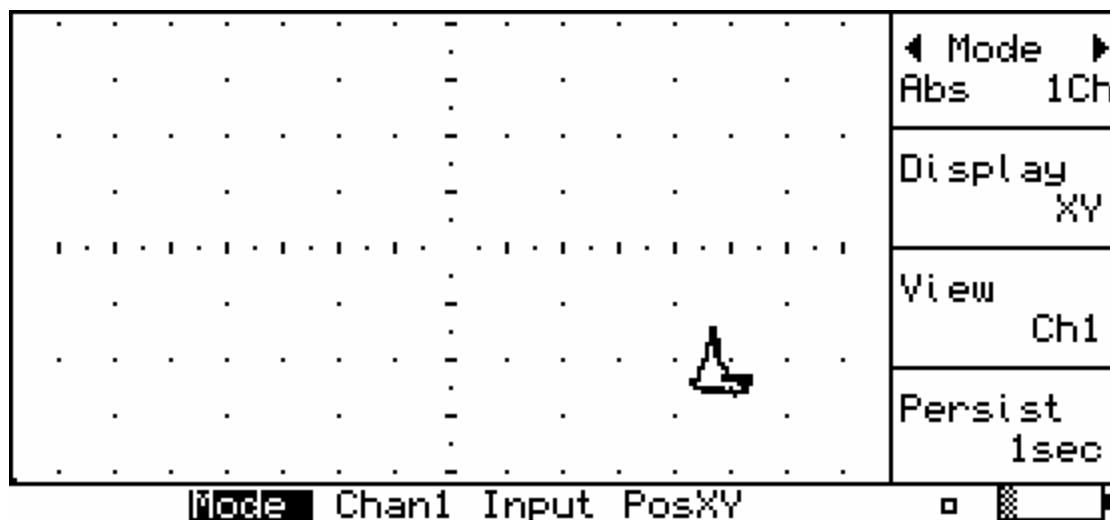


Figure B-63. MFEC indication stringer 4R at BS 540 rivet 10 aft side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-74</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR:

INSTRUMENT SN:

CODE:  
 LOCATION:  
 JOB NAME:  
 TEST COMMENTS: mfec str 4r sta 540 rivet 11 fwd

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump 14 : 42 09 Nov '02

Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs	1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz	
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB	
Ch1 Phase	1P	101.6°	Ch2 Phase	2P	0.0°	
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB	
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB	
Hi-pass	HP	DC	Lo-pass	LP	100 Hz	
X-pos 1	1H	60	X-pos 2	2H	1	
Y-pos 1	1V	-32	Y-pos 2	2V	0	
Alarm Shape	AT	Off	Apply to	AA	Both	
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent	
Top	TA	10	Left	LA	Off	
Right	RA	Off	Bottom	BA	Off	
Inner	IA	All Off	Outer	OA	55	
Start	SA	2.0°	End	EA	5.0°	
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y	
Persist	PE	1sec	Sweep	SD	1sec	
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V	
Inp. Gain	IP	0dB	Bal. Load	LO	120uH	
Graticule	GR	Rect.C_				

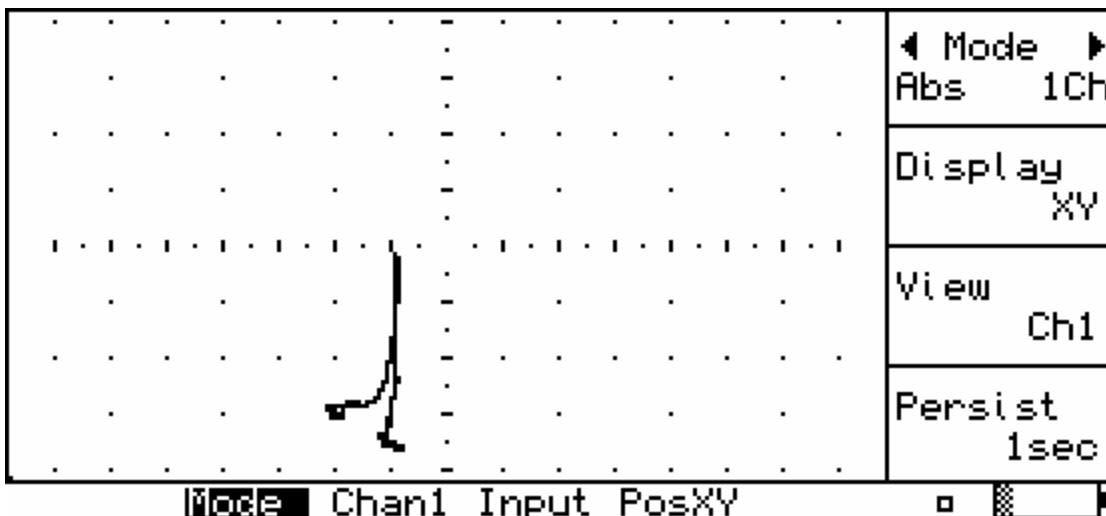


Figure B-64. MFEC indication stringer 4R at BS 540 rivet 11 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-75</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS:

mfec str 4r sta 520 rivet 14 fwd

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

Dump	15 : 02	09	Nov	'02	
Probe	PR	Standard	Mode	MO	Abs 1Ch
Display	DI	XY	View	VW	Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.6°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	1sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

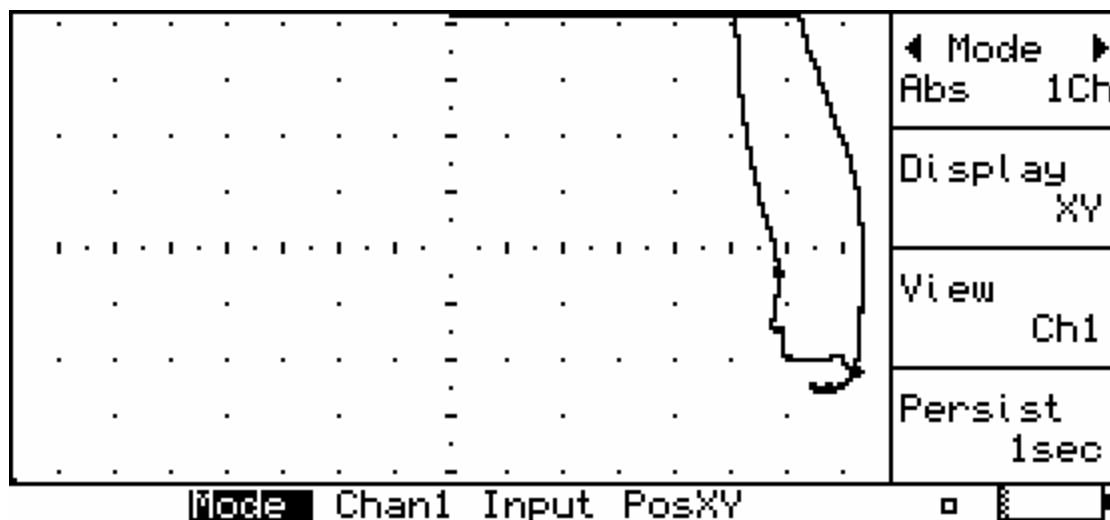


Figure B-65. MFEC indication stringer 4R at BS 540 rivet 14 aft side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-75</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 560 rivet 3 aft

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	14 : 39	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.6°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	1sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

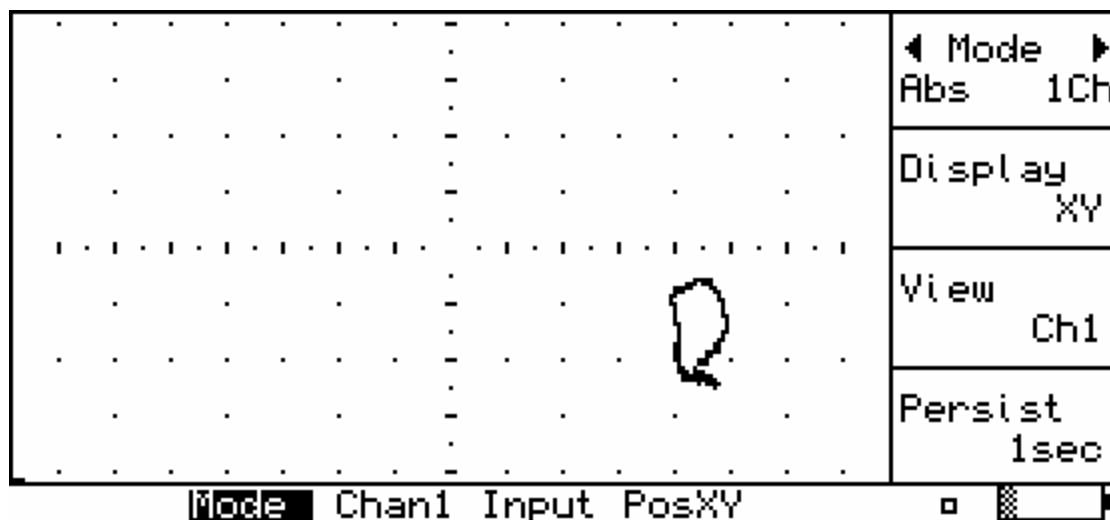


Figure B-66. MFEC indication stringer 4R at BS 560 rivet 3 aft side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-76</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:  
 LOCATION:  
 JOB NAME:  
 TEST COMMENTS: mfec str 4r sta 560 rivet 6 fwd

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	14 : 38	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs 1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.6°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	1sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

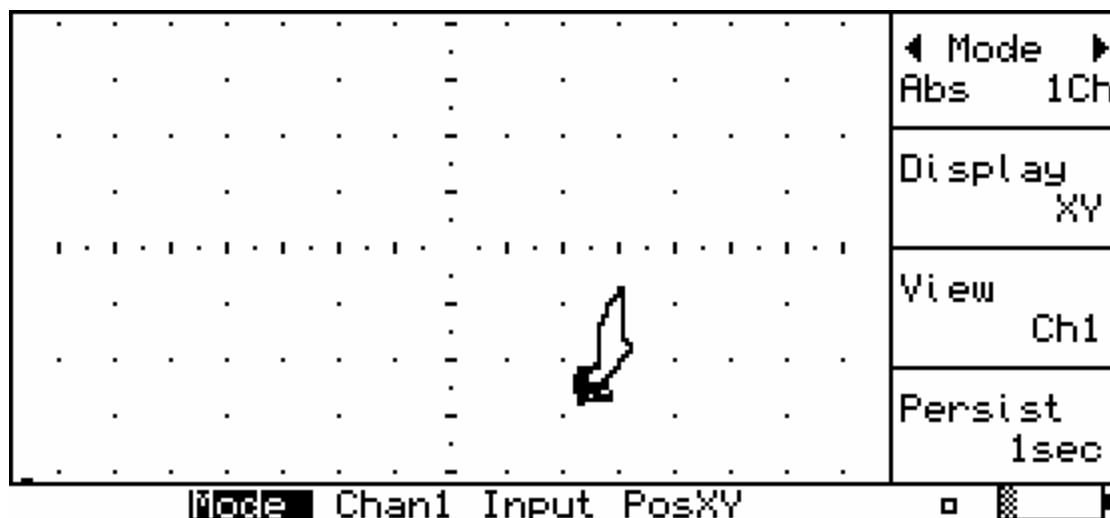


Figure B-67. MFEC indication stringer 4R at BS 560 rivet 6 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-77</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 560 rivet 8 aft

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

Dump 14 : 37 09 Nov '02

Probe	PR	Standard	Mode	MO	Abs	1Ch
Display	DI	XY	View	VW		Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz	
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB	
Ch1 Phase	1P	101.6°	Ch2 Phase	2P	0.0°	
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB	
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB	
Hi-pass	HP	DC	Lo-pass	LP	100 Hz	
X-pos 1	1H	60	X-pos 2	2H	1	
Y-pos 1	1V	-32	Y-pos 2	2V	0	
Alarm Shape	AT	Off	Apply to	AA	Both	
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent	
Top	TA	10	Left	LA	Off	
Right	RA	Off	Bottom	BA	Off	
Inner	IA	All Off	Outer	OA	55	
Start	SA	2.0°	End	EA	5.0°	
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y	
Persist	PE	1sec	Sweep	SD	1sec	
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V	
Inp. Gain	IP	0dB	Bal. Load	LO	120uH	
Graticule	GR	Rect.C_				

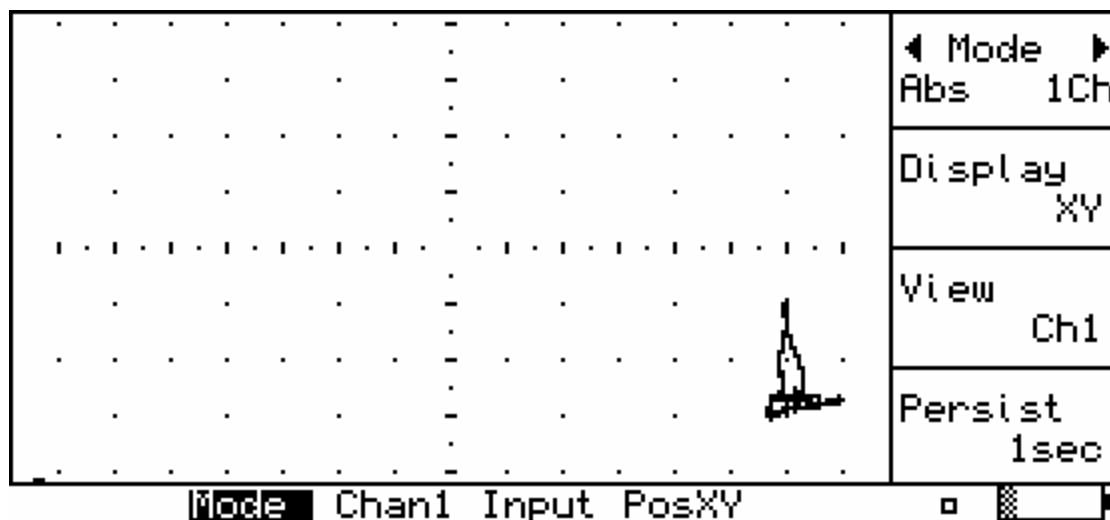


Figure B-68. MFEC indication stringer 4R at BS 560 rivet 8 aft side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-78</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 560 rivet 9 aft

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

Dump 14 : 37 09 Nov '02

Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.6°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	1sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

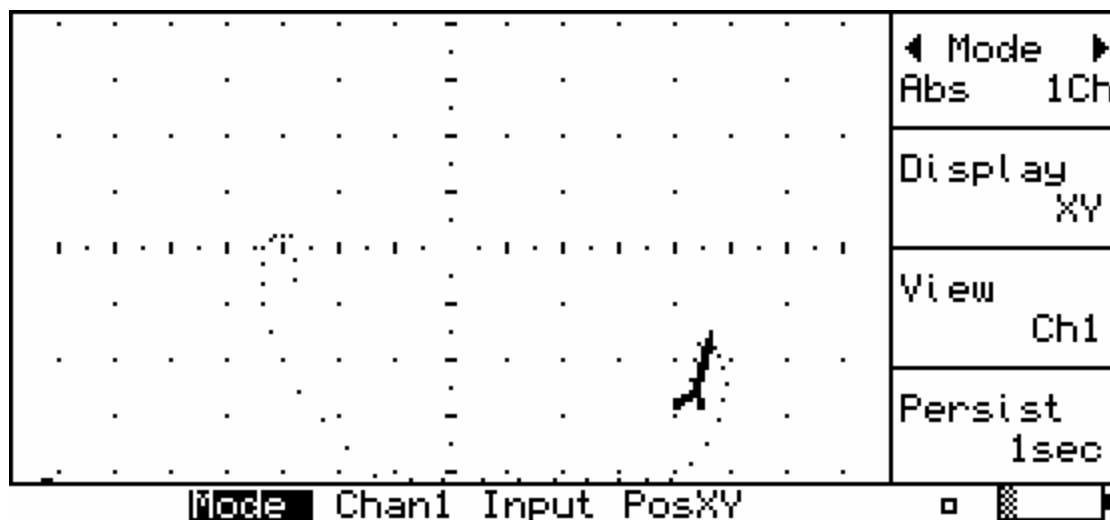


Figure B-69. MFEC indication stringer 4R at BS 560 rivet 9 aft side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-79</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 560 rivet 10 fwd

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump 14 : 35 09 Nov '02

Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.6°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	1sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

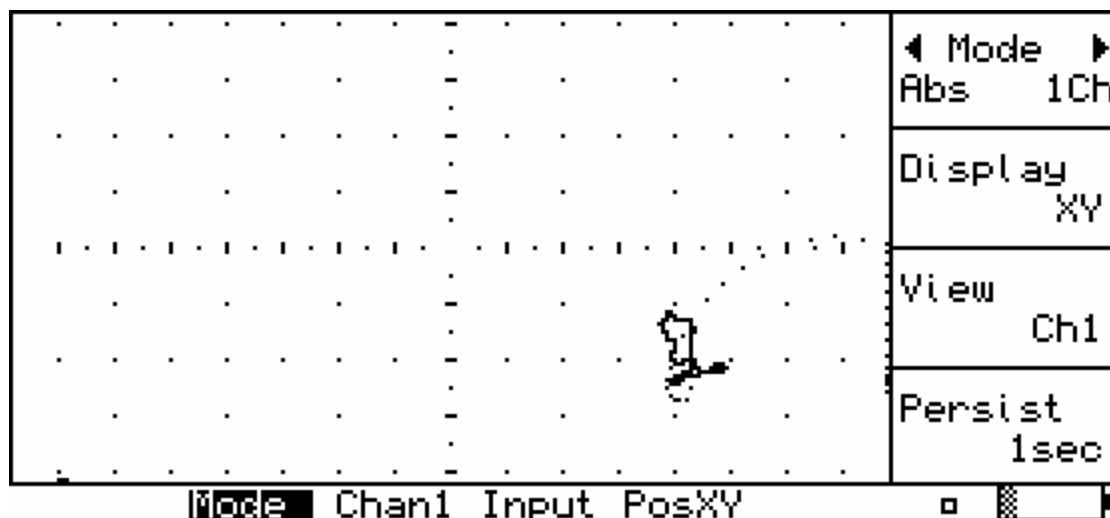


Figure B-70. MFEC indication stringer 4R at BS 560 rivet 10 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-80</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 560 rivet 10 aft

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

Dump 14 : 36 09 Nov '02

Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.6°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	1sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

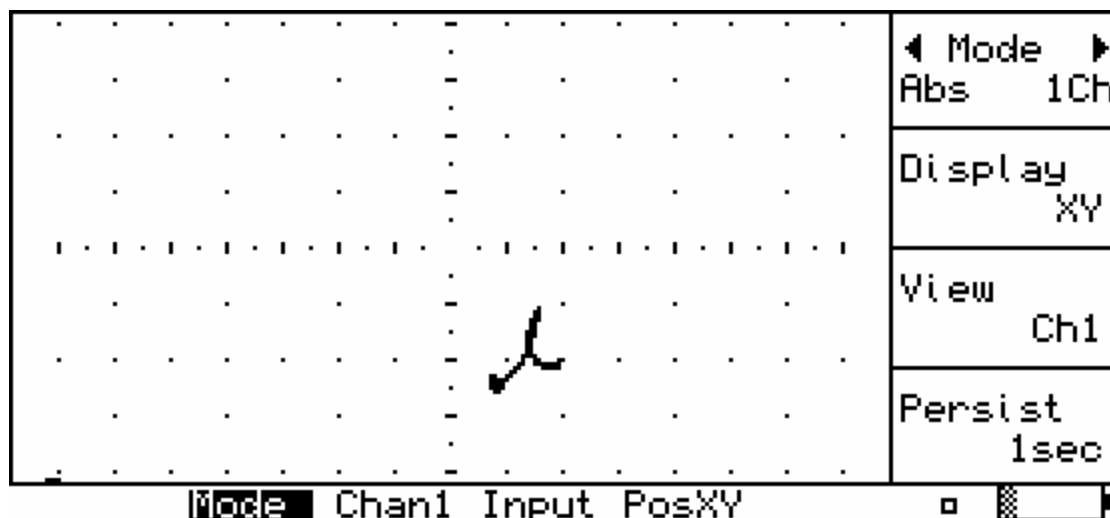


Figure B-71. MFEC indication stringer 4R at BS 560 rivet 10 aft side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-81</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 560 rivet 11 fwd

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	14 : 33	09	Nov	'02	
Probe	PR	Standard	Mode	MO	Abs 1Ch
Display	DI	XY	View	VW	Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.6°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	1sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

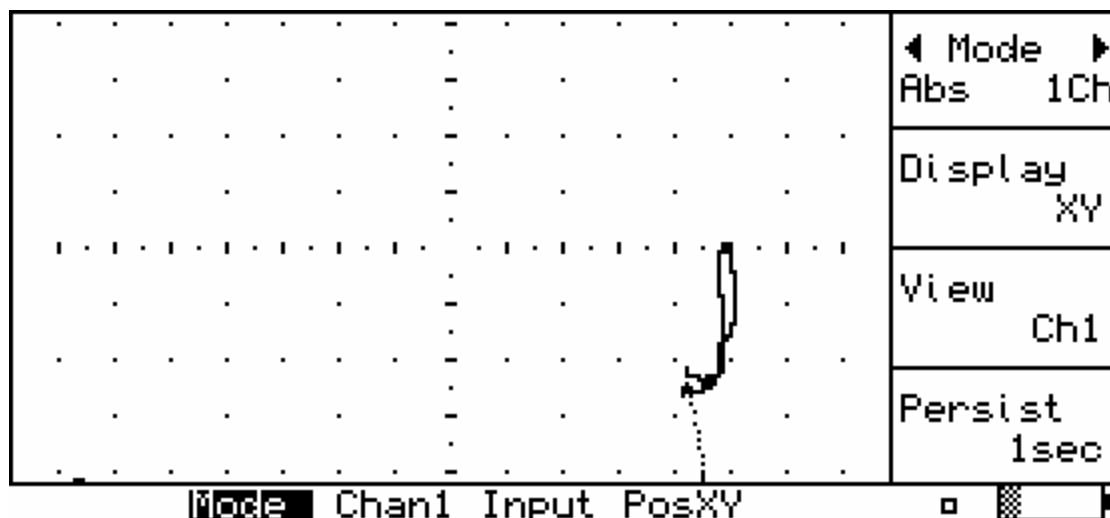


Figure B-72. MFEC indication stringer 4R at BS 560 rivet 11 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-82</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 560 rivet 11 aft

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

Dump 14 : 34 09 Nov '02

Probe	PR	Standard	Mode	MO	Abs	1Ch
Display	DI	XY	View	VW		Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz	
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB	
Ch1 Phase	1P	101.6°	Ch2 Phase	2P	0.0°	
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB	
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB	
Hi-pass	HP	DC	Lo-pass	LP	100 Hz	
X-pos 1	1H	60	X-pos 2	2H	1	
Y-pos 1	1V	-32	Y-pos 2	2V	0	
Alarm Shape	AT	Off	Apply to	AA	Both	
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent	
Top	TA	10	Left	LA	Off	
Right	RA	Off	Bottom	BA	Off	
Inner	IA	All Off	Outer	OA	55	
Start	SA	2.0°	End	EA	5.0°	
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y	
Persist	PE	1sec	Sweep	SD	1sec	
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V	
Inp. Gain	IP	0dB	Bal. Load	LO	120uH	
Graticule	GR	Rect.C_				

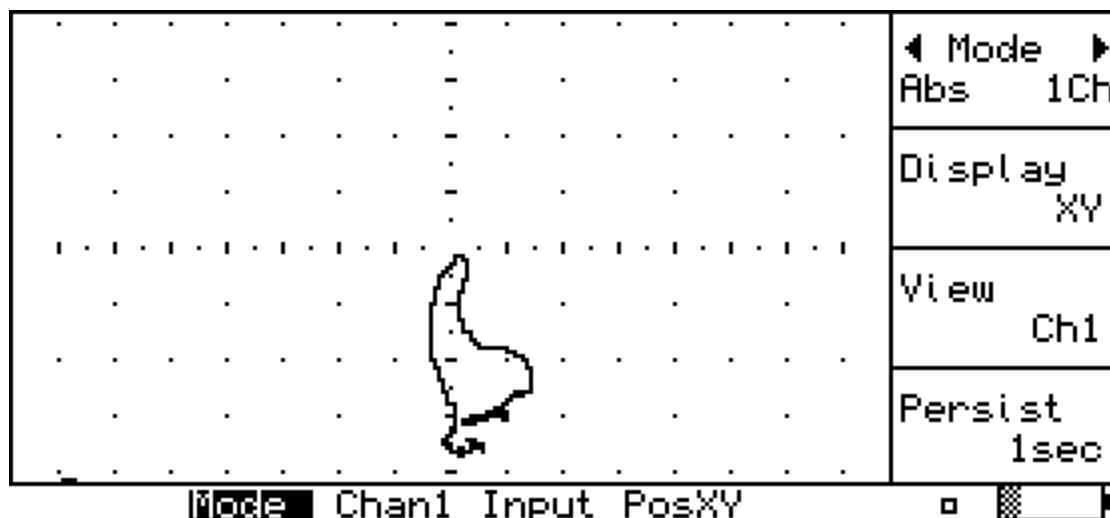


Figure B-73. MFEC indication stringer 4R at BS 560 rivet 11 aft side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-83</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 560 rivet 12 aft

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

Dump	14 : 32	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.6°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	1sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

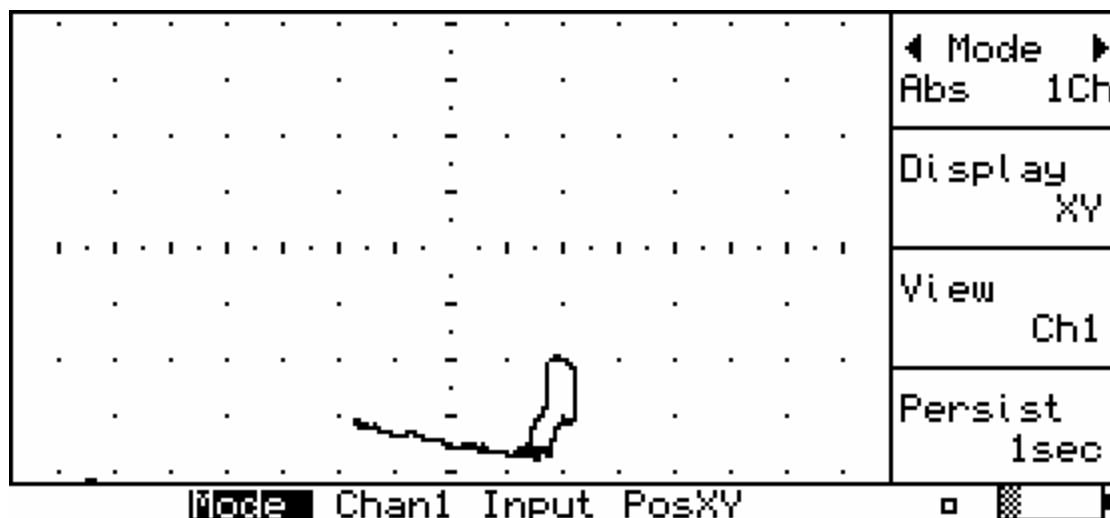


Figure B-74. MFEC indication stringer 4R at BS 560 rivet 12 aft side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-84</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 560 rivet 13 aft

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

Dump 14 : 31 09 Nov '02

Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.6°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	1sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

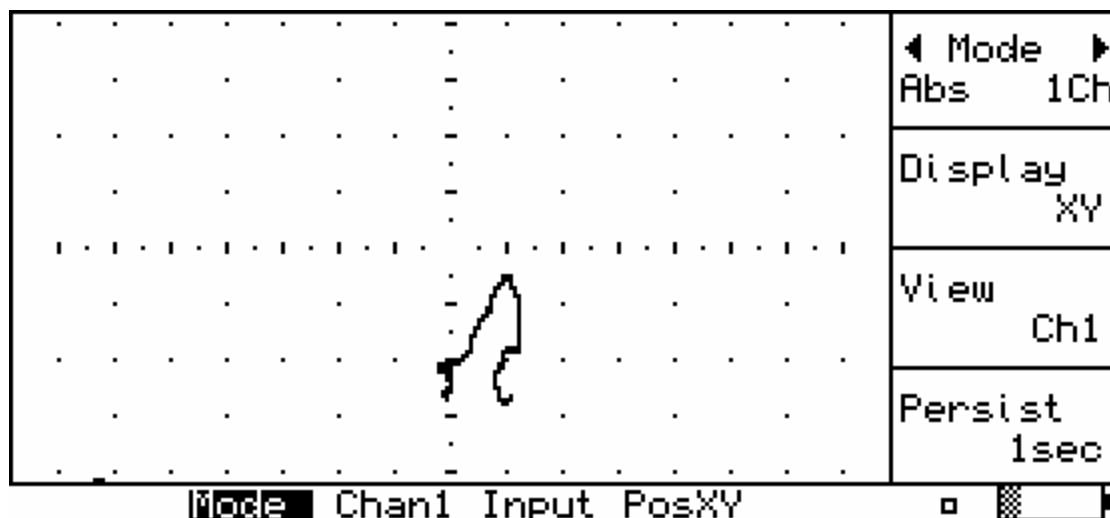


Figure B-75. MFEC indication stringer 4R at BS 560 rivet 13 aft side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-85</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 560 rivet 14 fwd

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

Dump	14 : 28	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs 1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.6°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	1sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

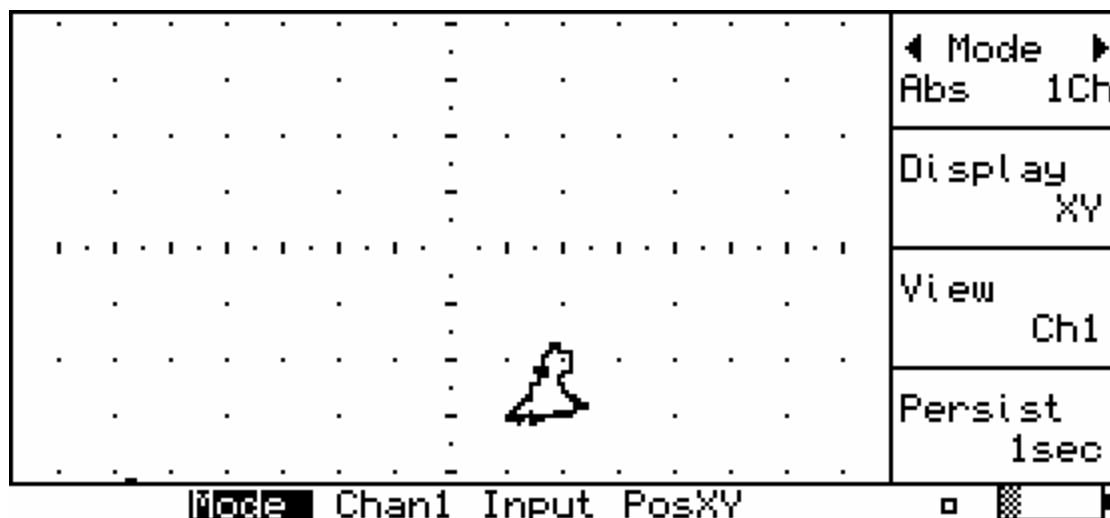


Figure B-76. MFEC indication stringer 4R at BS 560 rivet 14 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-86</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 560 rivet 14 aft

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

Dump 14 : 29 09 Nov '02

Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs	1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz	
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB	
Ch1 Phase	1P	101.6°	Ch2 Phase	2P	0.0°	
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB	
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB	
Hi-pass	HP	DC	Lo-pass	LP	100 Hz	
X-pos 1	1H	60	X-pos 2	2H	1	
Y-pos 1	1V	-32	Y-pos 2	2V	0	
Alarm Shape	AT	Off	Apply to	AA	Both	
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent	
Top	TA	10	Left	LA	Off	
Right	RA	Off	Bottom	BA	Off	
Inner	IA	All Off	Outer	OA	55	
Start	SA	2.0°	End	EA	5.0°	
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y	
Persist	PE	1sec	Sweep	SD	1sec	
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V	
Inp. Gain	IP	0dB	Bal. Load	LO	120uH	
Graticule	GR	Rect.C_				

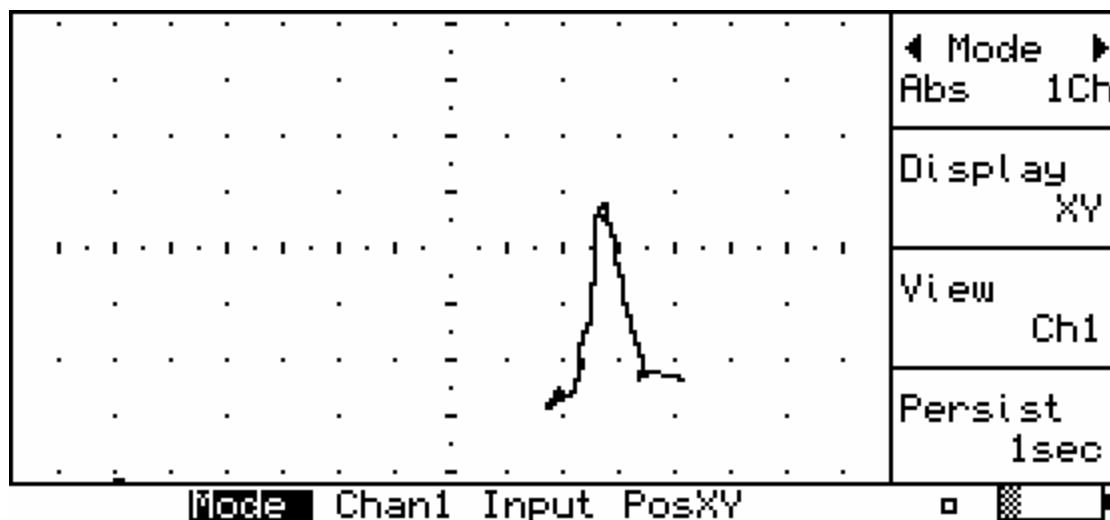


Figure B-77. MFEC indication stringer 4R at BS 560 rivet 14 aft side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-87</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 580 rivet 3 fwd

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump 14 : 27 09 Nov '02

Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.6°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	1sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

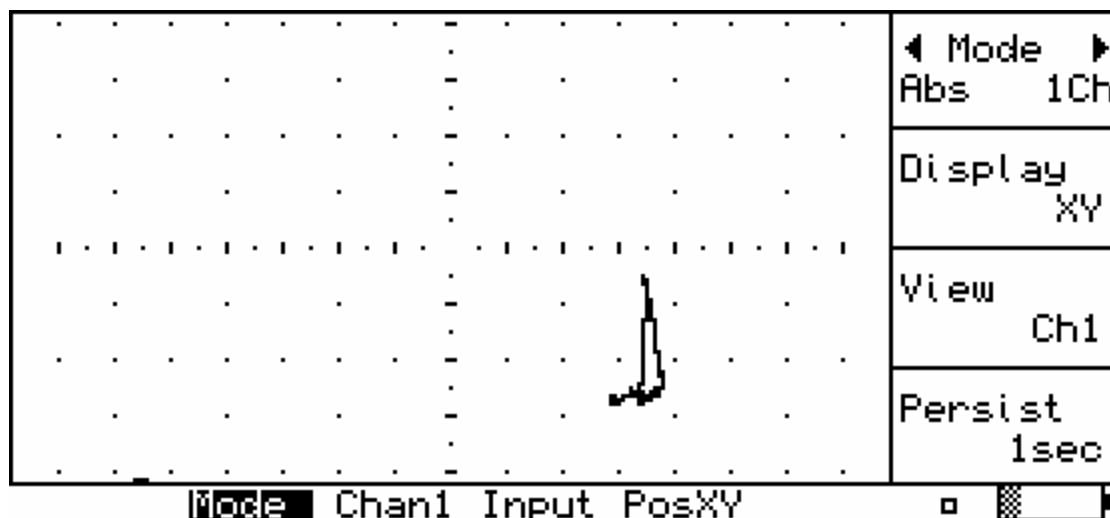


Figure B-78. MFEC indication stringer 4R at BS 580 rivet 3 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-88</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS:

mfec str 4r sta 580 rivet 5 aft

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

Dump 14 : 25 09 Nov '02

Probe	PR	Standard	Mode	MO	Abs	1Ch
Display	DI	XY	View	VW		Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz	
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB	
Ch1 Phase	1P	101.6°	Ch2 Phase	2P	0.0°	
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB	
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB	
Hi-pass	HP	DC	Lo-pass	LP	100 Hz	
X-pos 1	1H	60	X-pos 2	2H	1	
Y-pos 1	1V	-32	Y-pos 2	2V	0	
Alarm Shape	AT	Off	Apply to	AA	Both	
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent	
Top	TA	10	Left	LA	Off	
Right	RA	Off	Bottom	BA	Off	
Inner	IA	All Off	Outer	OA	55	
Start	SA	2.0°	End	EA	5.0°	
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y	
Persist	PE	1sec	Sweep	SD	1sec	
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V	
Inp. Gain	IP	0dB	Bal. Load	LO	120uH	
Graticule	GR	Rect.C_				

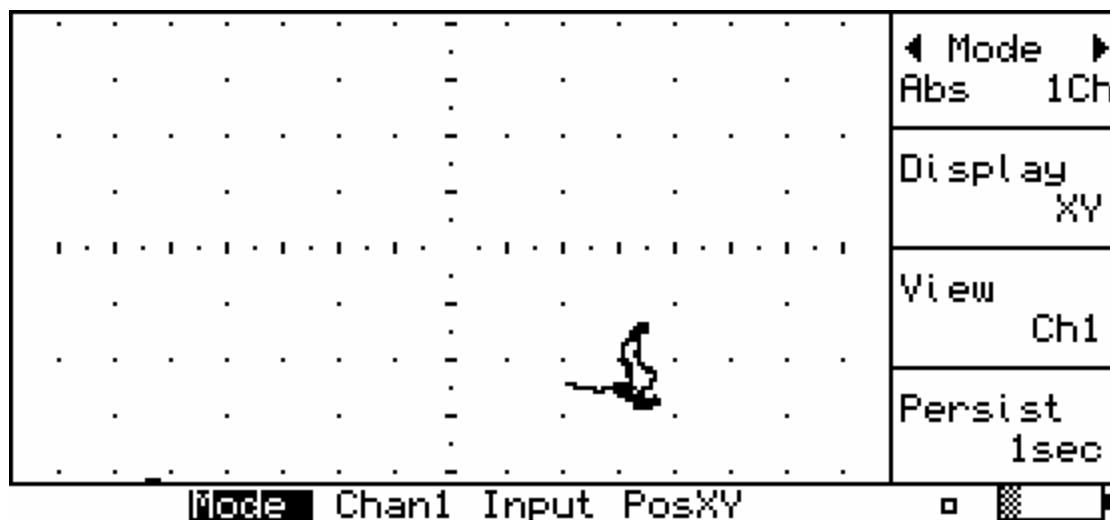


Figure B-79. MFEC indication stringer 4R at BS 580 rivet 3 aft side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-89</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 580 rivet 6 aft

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

Dump 14 : 24 09 Nov '02

Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.6°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	1sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

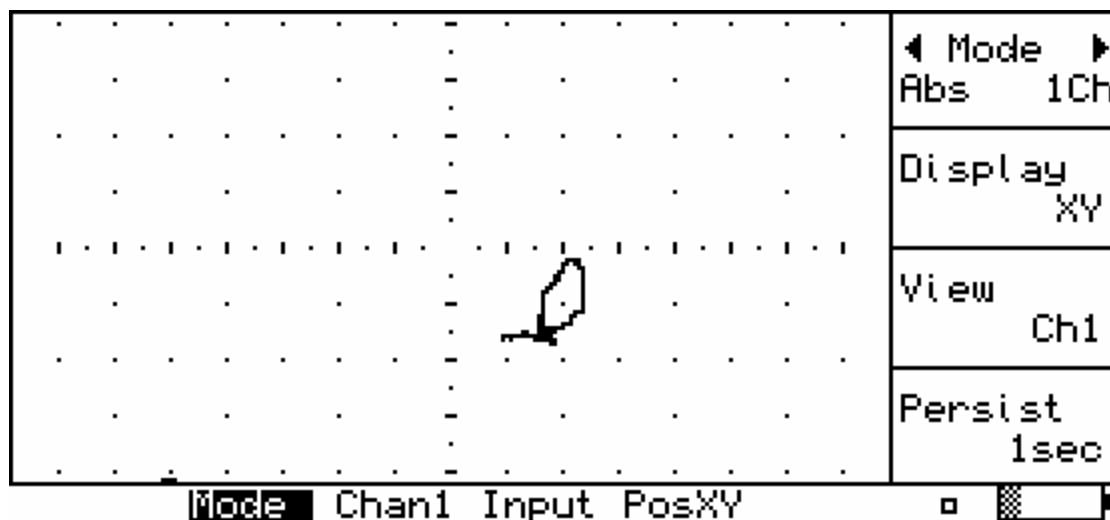


Figure B-80. MFEC indication stringer 4R at BS 580 rivet 6 aft side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-90</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 580 rivet 8 fwd

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump 14 : 23 09 Nov '02

Probe	PR	Standard	Mode	MO	Abs	1Ch
Display	DI	XY	View	VW		Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz	
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB	
Ch1 Phase	1P	101.6°	Ch2 Phase	2P	0.0°	
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB	
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB	
Hi-pass	HP	DC	Lo-pass	LP	100 Hz	
X-pos 1	1H	60	X-pos 2	2H	1	
Y-pos 1	1V	-32	Y-pos 2	2V	0	
Alarm Shape	AT	Off	Apply to	AA	Both	
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent	
Top	TA	10	Left	LA	Off	
Right	RA	Off	Bottom	BA	Off	
Inner	IA	All Off	Outer	OA	55	
Start	SA	2.0°	End	EA	5.0°	
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y	
Persist	PE	1sec	Sweep	SD	1sec	
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V	
Inp. Gain	IP	0dB	Bal. Load	LO	120uH	
Graticule	GR	Rect.C_				

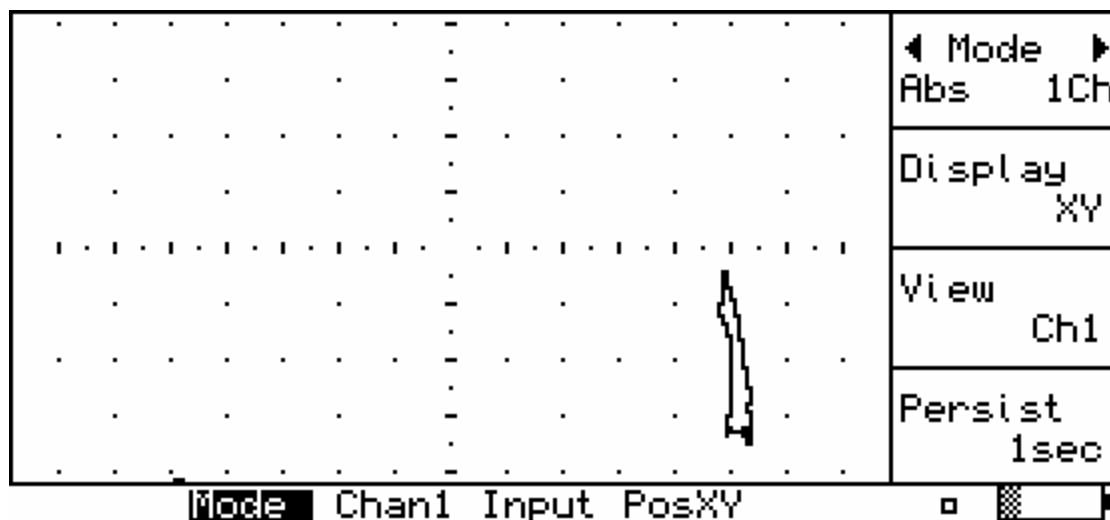


Figure B-81. MFEC indication stringer 4R at BS 580 rivet 8 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-91</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 580 rivet 9 fwd

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

Dump 14 : 21 09 Nov '02

Probe	PR	Standard	Mode	MO	Abs	1Ch
Display	DI	XY	View	VW		Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz	
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB	
Ch1 Phase	1P	101.6°	Ch2 Phase	2P	0.0°	
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB	
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB	
Hi-pass	HP	DC	Lo-pass	LP	100 Hz	
X-pos 1	1H	60	X-pos 2	2H	1	
Y-pos 1	1V	-32	Y-pos 2	2V	0	
Alarm Shape	AT	Off	Apply to	AA	Both	
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent	
Top	TA	10	Left	LA	Off	
Right	RA	Off	Bottom	BA	Off	
Inner	IA	All Off	Outer	OA	55	
Start	SA	2.0°	End	EA	5.0°	
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y	
Persist	PE	1sec	Sweep	SD	1sec	
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V	
Inp. Gain	IP	0dB	Bal. Load	LO	120uH	
Graticule	GR	Rect.C_				

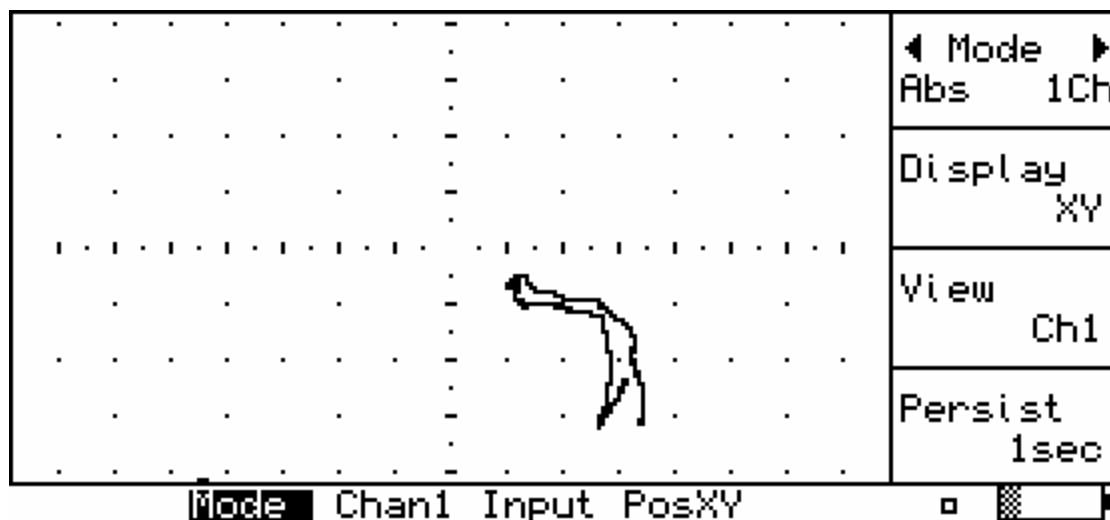


Figure B-82. MFEC indication stringer 4R at BS 580 rivet 9 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-92</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 580 rivet 9 aft

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

Dump 14 : 22 09 Nov '02

Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs	1Ch
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz	
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB	
Ch1 Phase	1P	101.6°	Ch2 Phase	2P	0.0°	
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB	
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB	
Hi-pass	HP	DC	Lo-pass	LP	100 Hz	
X-pos 1	1H	60	X-pos 2	2H	1	
Y-pos 1	1V	-32	Y-pos 2	2V	0	
Alarm Shape	AT	Off	Apply to	AA	Both	
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent	
Top	TA	10	Left	LA	Off	
Right	RA	Off	Bottom	BA	Off	
Inner	IA	All Off	Outer	OA	55	
Start	SA	2.0°	End	EA	5.0°	
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y	
Persist	PE	1sec	Sweep	SD	1sec	
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V	
Inp. Gain	IP	0dB	Bal. Load	LO	120uH	
Graticule	GR	Rect.C_				

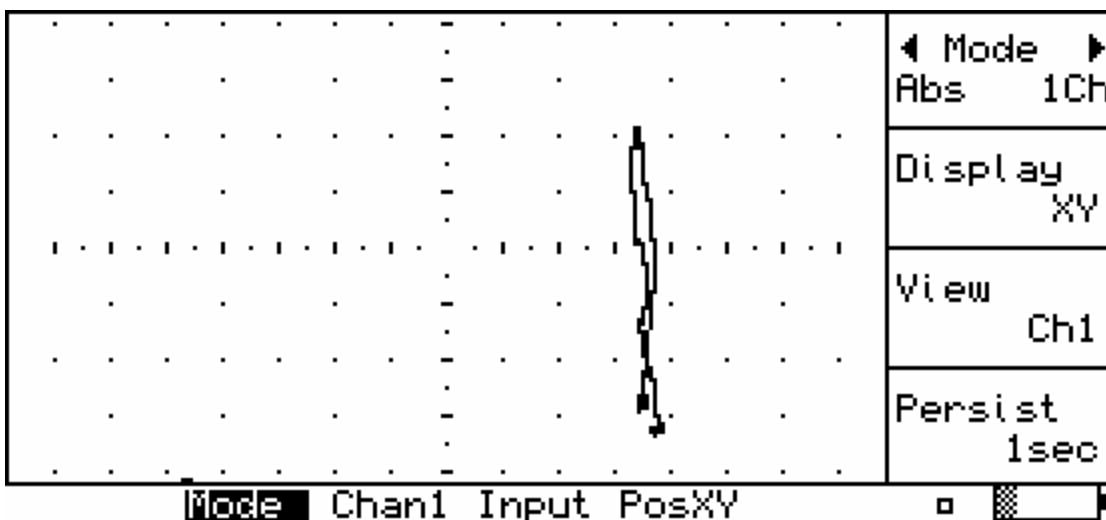


Figure B-83. MFEC indication stringer 4R at BS 580 rivet 9 aft side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-93</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 580 rivet 10 fwd

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	14 : 19	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs 1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.6°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	1sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

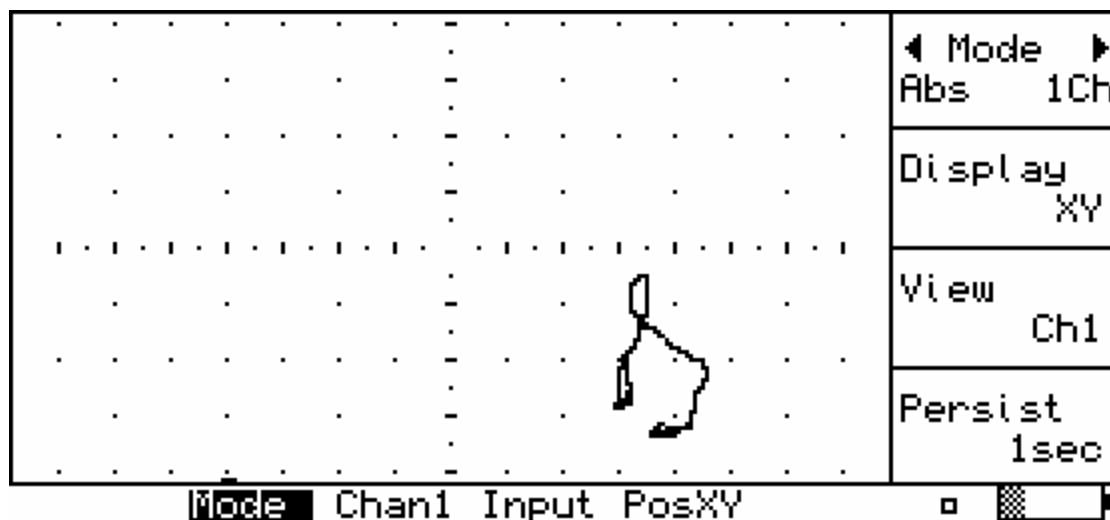


Figure B-84. MFEC indication stringer 4R at BS 580 rivet 10 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-94</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 580 rivet 10 aft

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

Dump	14 : 20	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs 1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.6°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	1sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

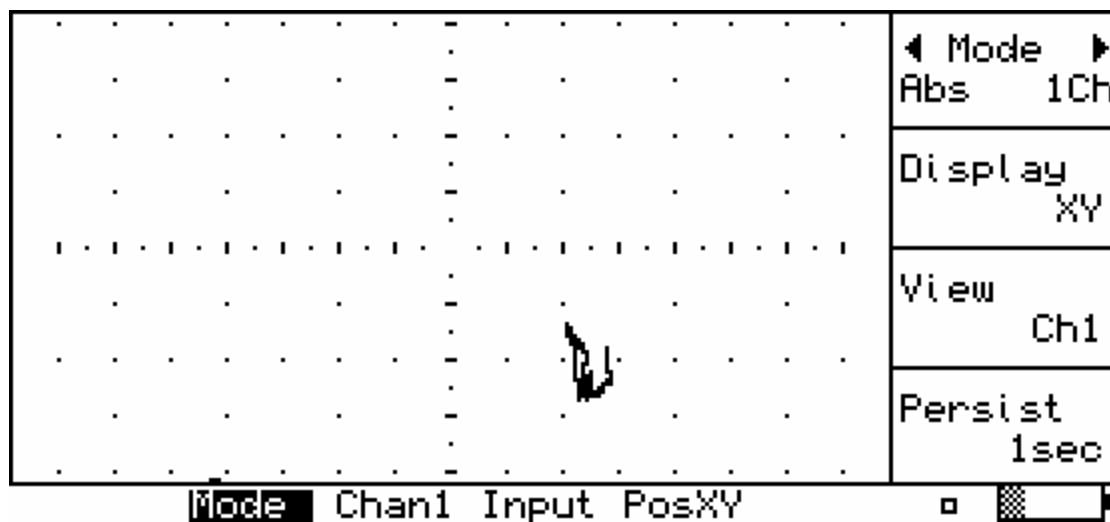


Figure B-85. MFEC indication stringer 4R at BS 580 rivet 10 aft side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-95</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS:

mfec str 4r sta 580 rivet 11 aft

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

Dump 14 : 17 09 Nov '02

Probe	PR	Standard	Mode	MO	Abs	1Ch
Display	DI	XY	View	VW		Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz	
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB	
Ch1 Phase	1P	101.6°	Ch2 Phase	2P	0.0°	
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB	
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB	
Hi-pass	HP	DC	Lo-pass	LP	100 Hz	
X-pos 1	1H	60	X-pos 2	2H	1	
Y-pos 1	1V	-32	Y-pos 2	2V	0	
Alarm Shape	AT	Off	Apply to	AA	Both	
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent	
Top	TA	10	Left	LA	Off	
Right	RA	Off	Bottom	BA	Off	
Inner	IA	All Off	Outer	OA	55	
Start	SA	2.0°	End	EA	5.0°	
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y	
Persist	PE	1sec	Sweep	SD	1sec	
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V	
Inp. Gain	IP	0dB	Bal. Load	LO	120uH	
Graticule	GR	Rect.C_				

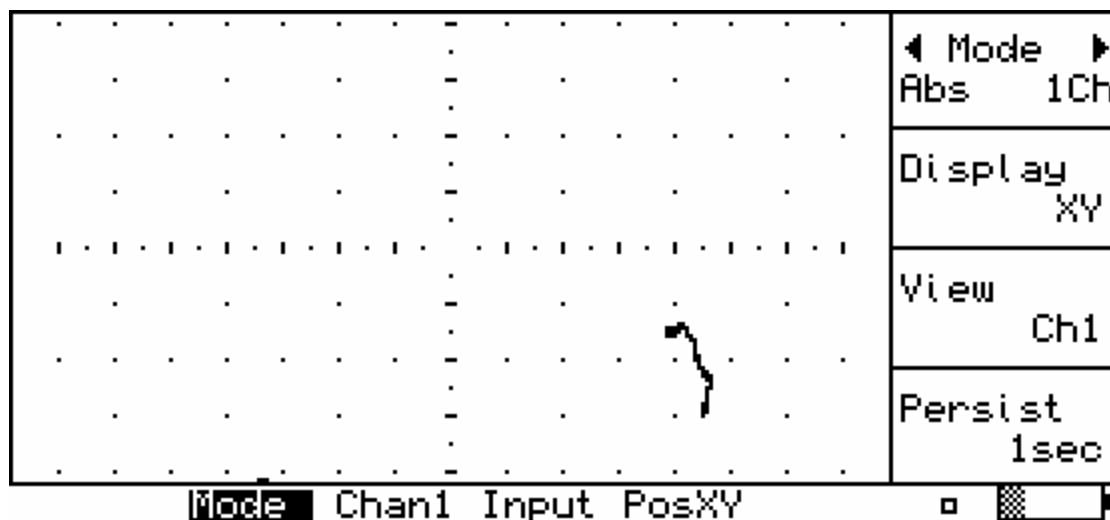


Figure B-86. MFEC indication stringer 4R at BS 580 rivet 11 aft side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-96</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 580 rivet 12 fwd

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	14 : 14	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.6°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	1sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

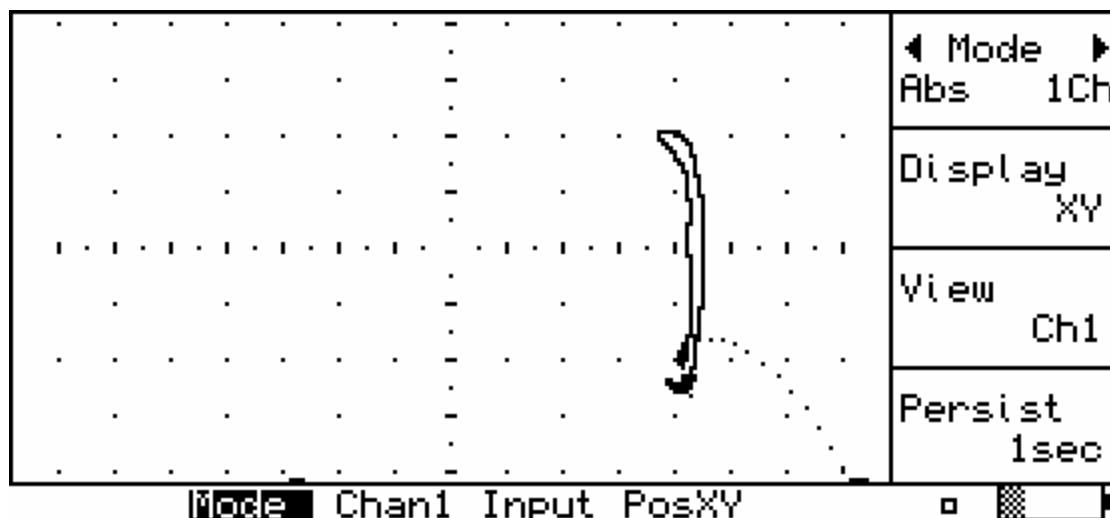


Figure B-87. MFEC indication stringer 4R at BS 580 rivet 12 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-97</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 580 rivet 12 aft

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

Dump	14 : 16	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs 1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.6°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	1sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

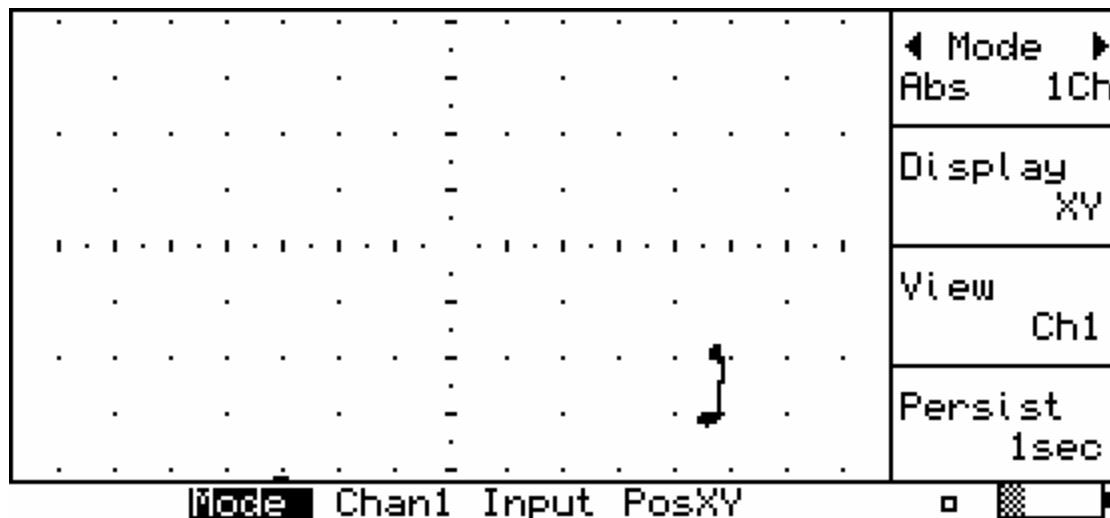


Figure B-88. MFEC indication stringer 4R at BS 580 rivet 12 aft side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-98</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 580 rivet 13 fwd

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	14 : 13	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs 1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.6°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	1sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

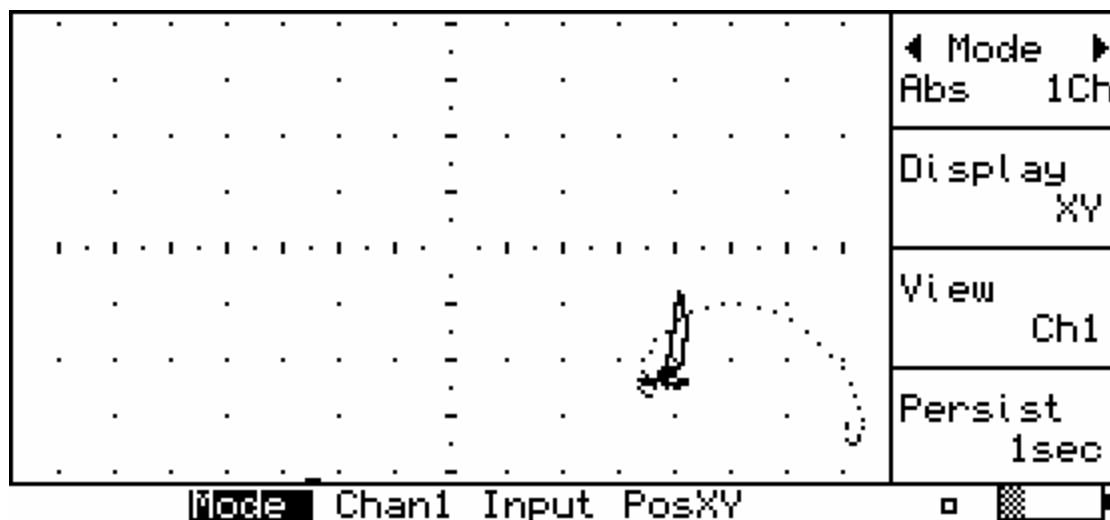


Figure B-89. MFEC indication stringer 4R at BS 580 rivet 13 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-99</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 580 rivet 14 fwd

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump 14 : 03 09 Nov '02

Probe	PR	Standard	Mode	MO	Abs	1Ch
Display	DI	XY	View	VW	Ch1	
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz	
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB	
Ch1 Phase	1P	101.6°	Ch2 Phase	2P	0.0°	
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB	
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB	
Hi-pass	HP	DC	Lo-pass	LP	100 Hz	
X-pos 1	1H	60	X-pos 2	2H	1	
Y-pos 1	1V	-32	Y-pos 2	2V	0	
Alarm Shape	AT	Off	Apply to	AA	Both	
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent	
Top	TA	10	Left	LA	Off	
Right	RA	Off	Bottom	BA	Off	
Inner	IA	All Off	Outer	OA	55	
Start	SA	2.0°	End	EA	5.0°	
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y	
Persist	PE	1sec	Sweep	SD	1sec	
Zoom	ZM	Normal	Drive	DR	+10dB	6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH	
Graticule	GR	Rect.C_				

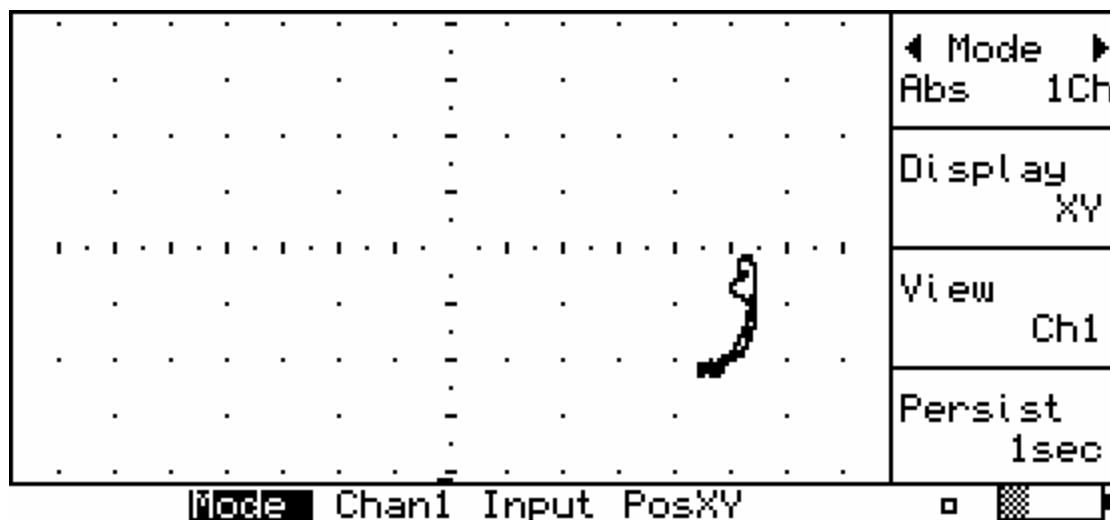


Figure B-90. MFEC indication stringer 4R at BS 580 rivet 14 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-100</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 600 rivet 9 fwd

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump 14 : 11 09 Nov '02

Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs	1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz	
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB	
Ch1 Phase	1P	101.6°	Ch2 Phase	2P	0.0°	
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB	
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB	
Hi-pass	HP	DC	Lo-pass	LP	100 Hz	
X-pos 1	1H	60	X-pos 2	2H	1	
Y-pos 1	1V	-32	Y-pos 2	2V	0	
Alarm Shape	AT	Off	Apply to	AA	Both	
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent	
Top	TA	10	Left	LA	Off	
Right	RA	Off	Bottom	BA	Off	
Inner	IA	All Off	Outer	OA	55	
Start	SA	2.0°	End	EA	5.0°	
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y	
Persist	PE	1sec	Sweep	SD	1sec	
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V	
Inp. Gain	IP	0dB	Bal. Load	LO	120uH	
Graticule	GR	Rect.C_				

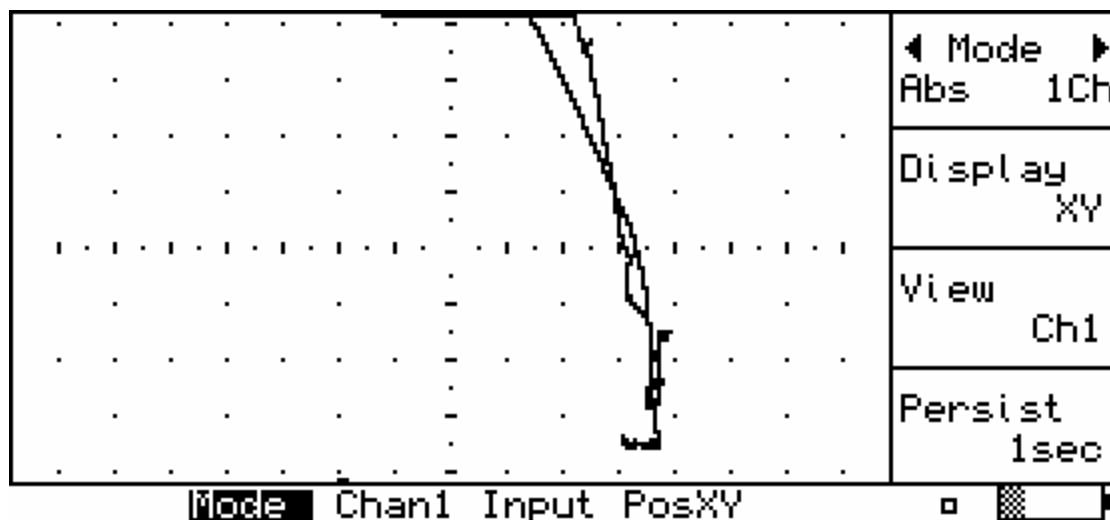


Figure B-91. MFEC indication stringer 4R at BS 600 rivet 9 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-101</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS:

mfec str 4r sta 600 rivet 9 aft

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

Dump	14 : 12	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.6°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	1sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

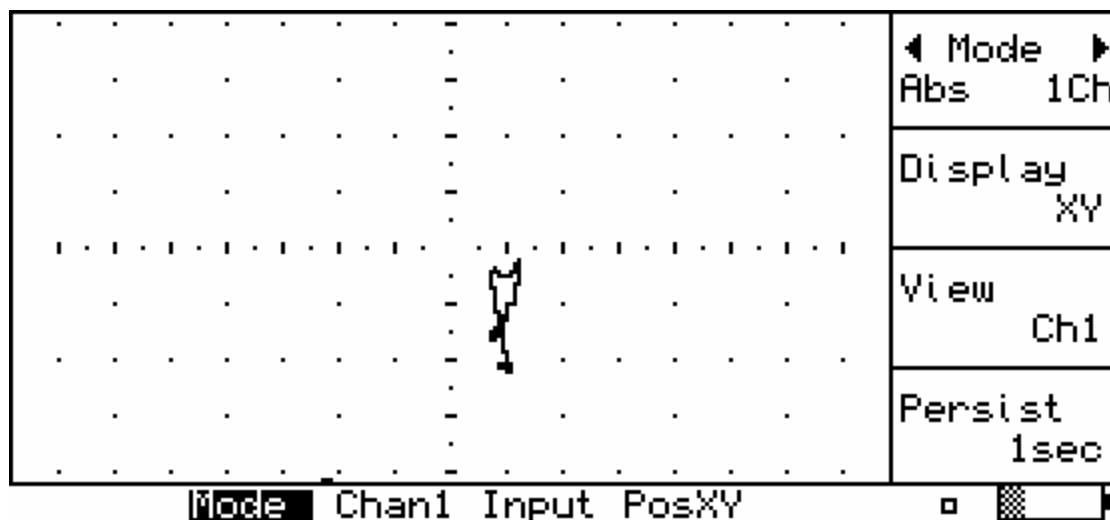


Figure B-92. MFEC indication stringer 4R at BS 600 rivet 9 aft side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-102</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 600 rivet 10 fwd

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

Dump 14 : 08 09 Nov '02

Probe	PR	Standard	Mode	MO	Abs	1Ch
Display	DI	XY	View	VW		Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz	
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB	
Ch1 Phase	1P	101.6°	Ch2 Phase	2P	0.0°	
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB	
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB	
Hi-pass	HP	DC	Lo-pass	LP	100 Hz	
X-pos 1	1H	60	X-pos 2	2H	1	
Y-pos 1	1V	-32	Y-pos 2	2V	0	
Alarm Shape	AT	Off	Apply to	AA	Both	
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent	
Top	TA	10	Left	LA	Off	
Right	RA	Off	Bottom	BA	Off	
Inner	IA	All Off	Outer	OA	55	
Start	SA	2.0°	End	EA	5.0°	
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y	
Persist	PE	1sec	Sweep	SD	1sec	
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V	
Inp. Gain	IP	0dB	Bal. Load	LO	120uH	
Graticule	GR	Rect.C_				

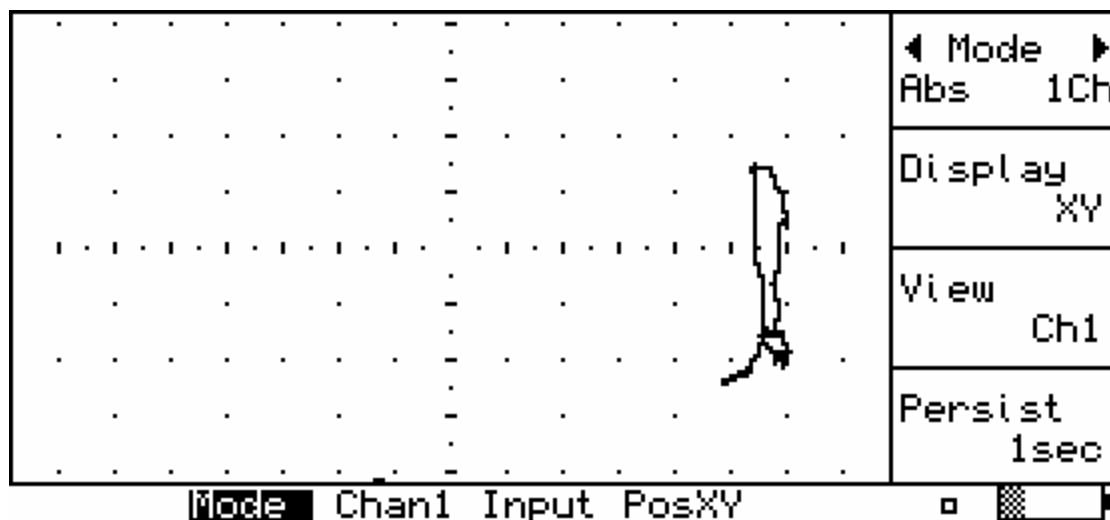


Figure B-93. MFEC indication stringer 4R at BS 600 rivet 10 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-103</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 600 rivet 10 aft

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump 14 : 09 09 Nov '02

Probe	PR	Standard	Mode	MO	Abs	1Ch
Display	DI	XY	View	VW		Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz	
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB	
Ch1 Phase	1P	101.6°	Ch2 Phase	2P	0.0°	
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB	
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB	
Hi-pass	HP	DC	Lo-pass	LP	100 Hz	
X-pos 1	1H	60	X-pos 2	2H	1	
Y-pos 1	1V	-32	Y-pos 2	2V	0	
Alarm Shape	AT	Off	Apply to	AA	Both	
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent	
Top	TA	10	Left	LA	Off	
Right	RA	Off	Bottom	BA	Off	
Inner	IA	All Off	Outer	OA	55	
Start	SA	2.0°	End	EA	5.0°	
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y	
Persist	PE	1sec	Sweep	SD	1sec	
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V	
Inp. Gain	IP	0dB	Bal. Load	LO	120uH	
Graticule	GR	Rect.C_				

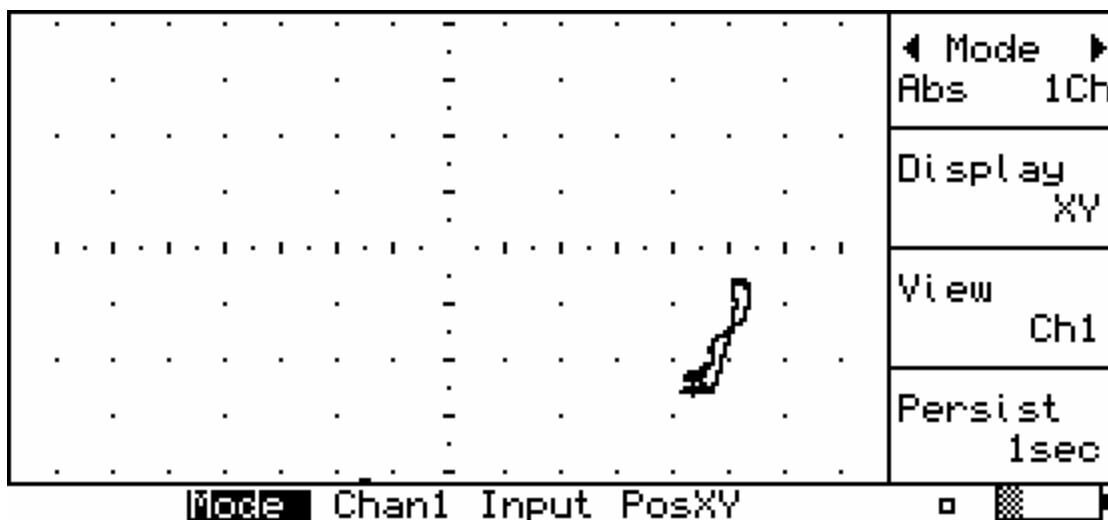


Figure B-94. MFEC indication stringer 4R at BS 600 rivet 10 aft side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-104</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:  
 LOCATION:  
 JOB NAME:  
 TEST COMMENTS: MFEC str 4R at sta 600 rivet 11 fwd side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	03 : 35	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs 1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	67.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	2sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

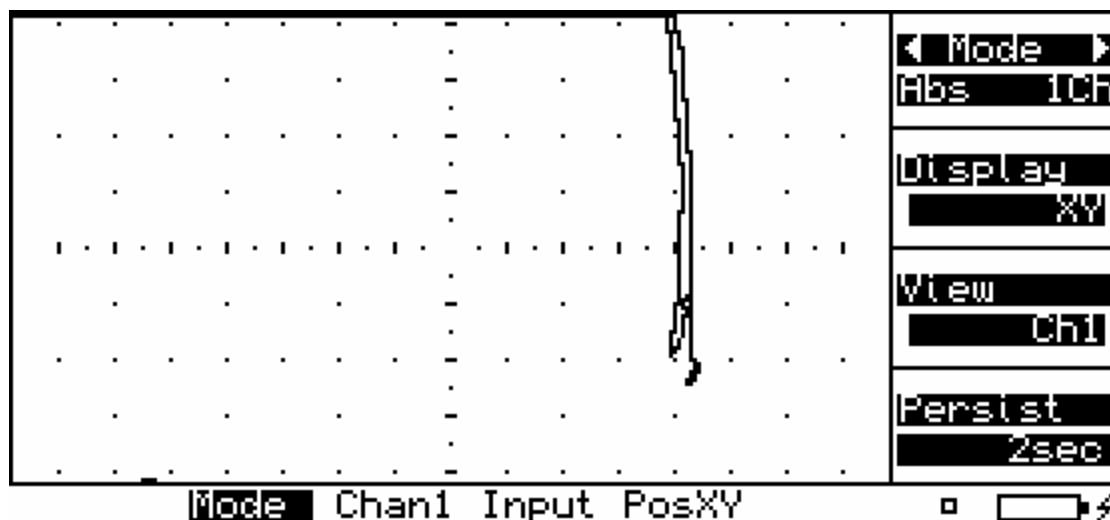


Figure B-95. MFEC indication stringer 4R at BS 600 rivet 11 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-105</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:  
 LOCATION:  
 JOB NAME:  
 TEST COMMENTS: mfec str 4r sta 600 rivet 11 aft

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	14 : 05	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs 1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.6°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	1sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

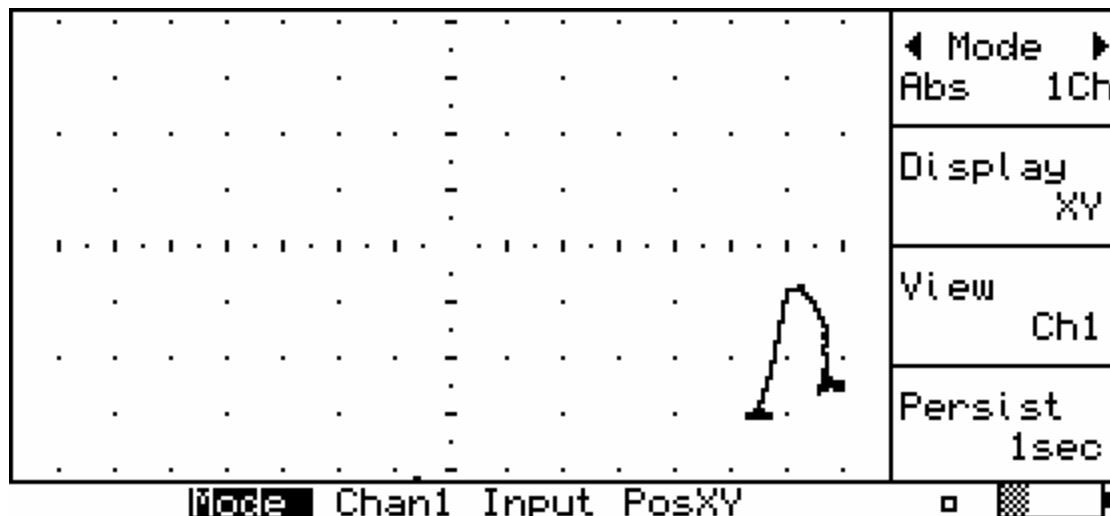


Figure B-96. MFEC indication stringer 4R at BS 600 rivet 11 aft side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-106</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:  
 LOCATION:  
 JOB NAME:  
 TEST COMMENTS: MFEC str 4R at sta 600 rivet 12 fwd side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	03 : 31	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	67.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	2sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

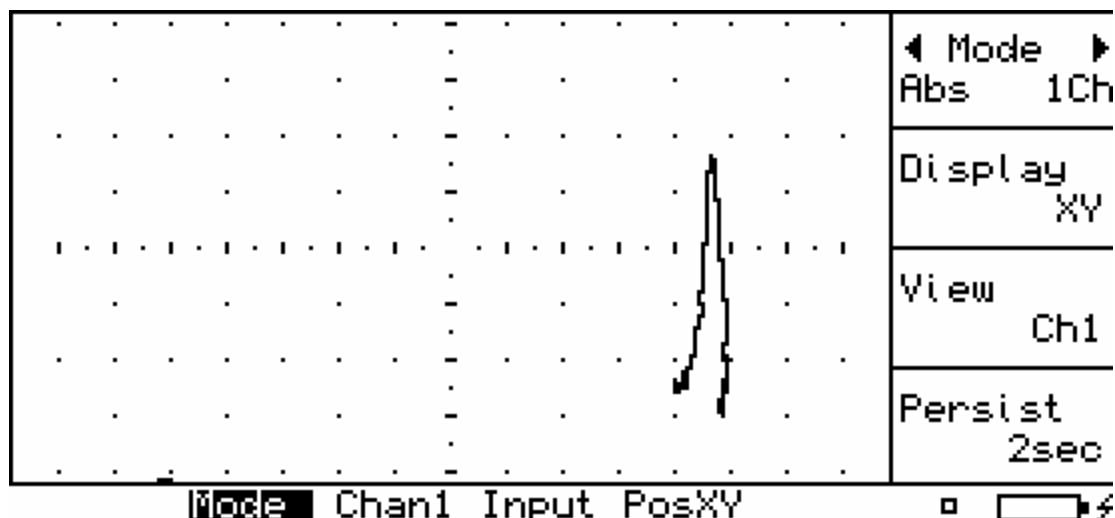


Figure B-97. MFEC indication stringer 4R at BS 600 rivet 12 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-107</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:  
 LOCATION:  
 JOB NAME:  
 TEST COMMENTS: MFEC str 4R at sta 600 rivet 12 aft side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	03 : 33	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs 1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	67.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	2sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

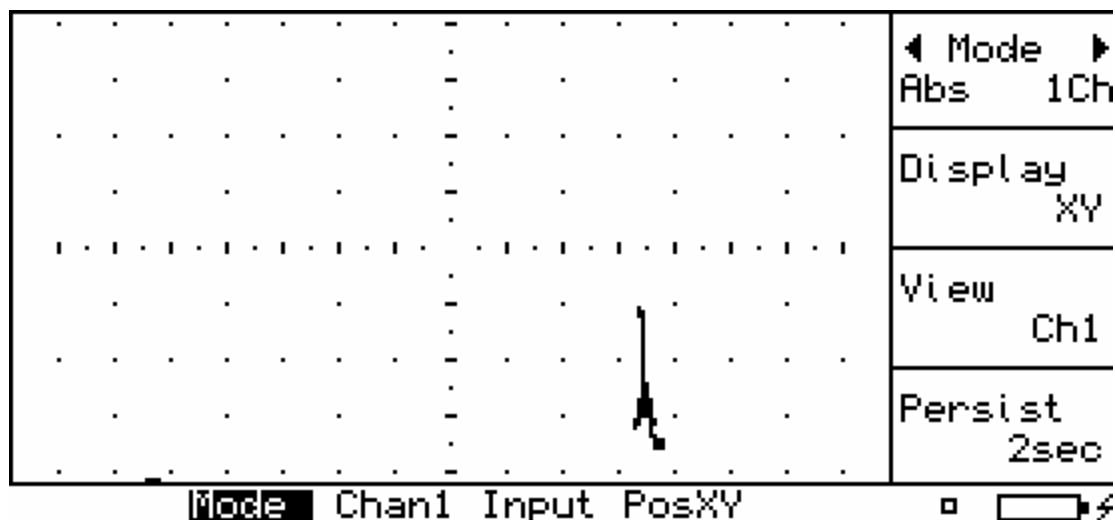


Figure B-98. MFEC indication stringer 4R at BS 600 rivet 12 aft side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-108</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: MFEC str 4R at sta 600 rivet 13 fwd side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	03 : 29	09	Nov	'02	
Probe	PR	Standard	Mode	MO	Abs 1Ch
Display	DI	XY	View	VW	Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	67.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	2sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

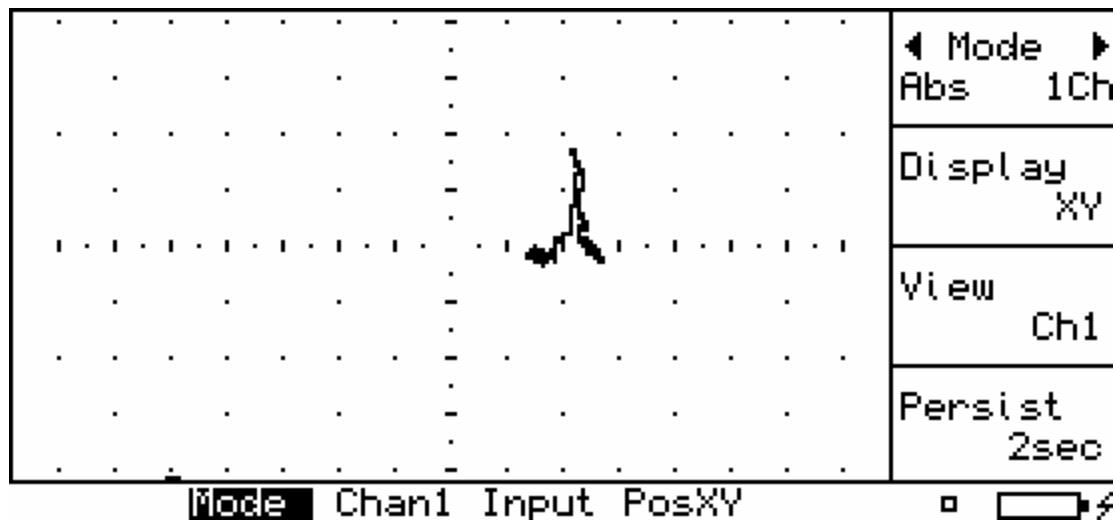


Figure B-99. MFEC indication stringer 4R at BS 600 rivet 13 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-109</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: MFEC str 4R at sta 620 rivet 4 fwd side

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

Dump 03 : 21 09 Nov '02

Probe	PR	Standard	Mode	MO	Abs	1Ch
Display	DI	XY	View	VW	Ch1	
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz	
Ch1 Gain	1G	67.0dB	Ch2 Gain	2G	20.0dB	
Ch1 Phase	1P	101.0°	Ch2 Phase	2P	0.0°	
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB	
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB	
Hi-pass	HP	DC	Lo-pass	LP	100 Hz	
X-pos 1	1H	60	X-pos 2	2H	1	
Y-pos 1	1V	-32	Y-pos 2	2V	0	
Alarm Shape	AT	Off	Apply to	AA	Both	
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent	
Top	TA	10	Left	LA	Off	
Right	RA	Off	Bottom	BA	Off	
Inner	IA	All Off	Outer	OA	55	
Start	SA	2.0°	End	EA	5.0°	
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y	
Persist	PE	2sec	Sweep	SD	1sec	
Zoom	ZM	Normal	Drive	DR	+10dB	6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH	
Graticule	GR	Rect.C_				

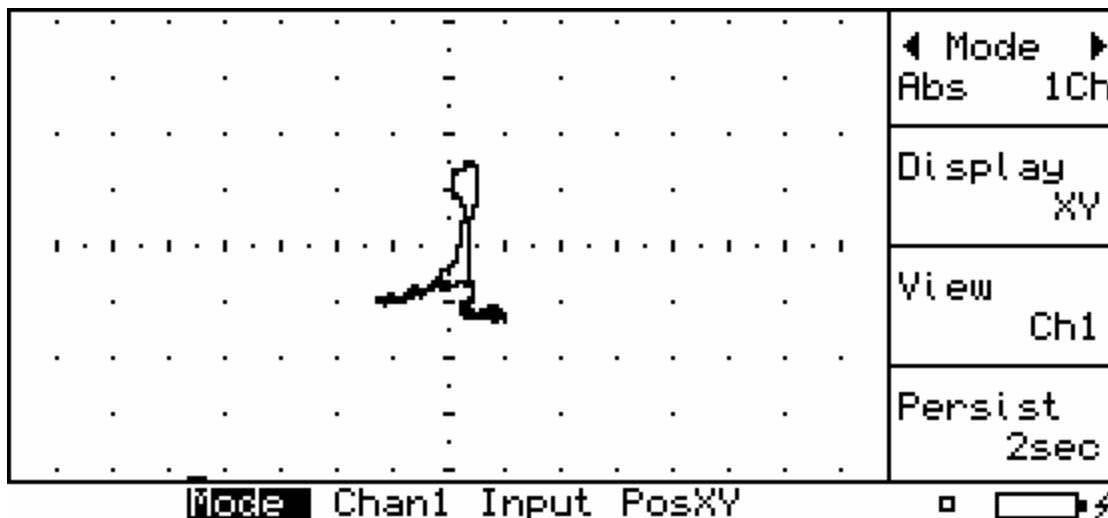


Figure B-100. MFEC indication stringer 4R at BS 620 rivet 4 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-110</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:  
 LOCATION:  
 JOB NAME:  
 TEST COMMENTS: MFEC str 4R at sta 620 rivet 4 aft side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	03 : 25	09	Nov	'02	
Probe	PR	Standard	Mode	MO	Abs 1Ch
Display	DI	XY	View	VW	Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	67.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	2sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

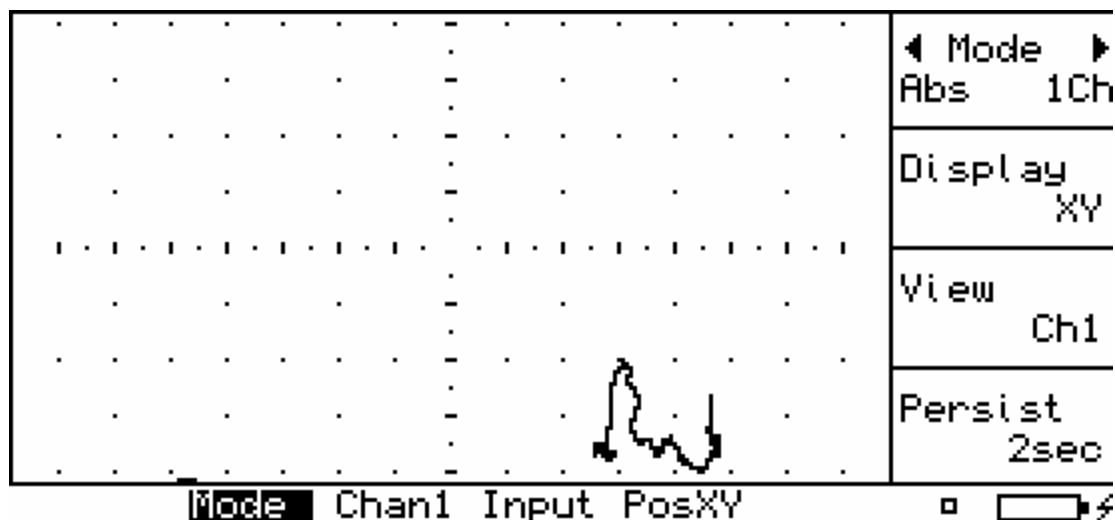


Figure B-101. MFEC indication stringer 4R at BS 620 rivet 4 aft side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-111</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:  
 LOCATION:  
 JOB NAME:  
 TEST COMMENTS: MFEC str 4R at sta 620 rivet 5 fwd side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	03 : 17	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs 1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	67.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	2sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

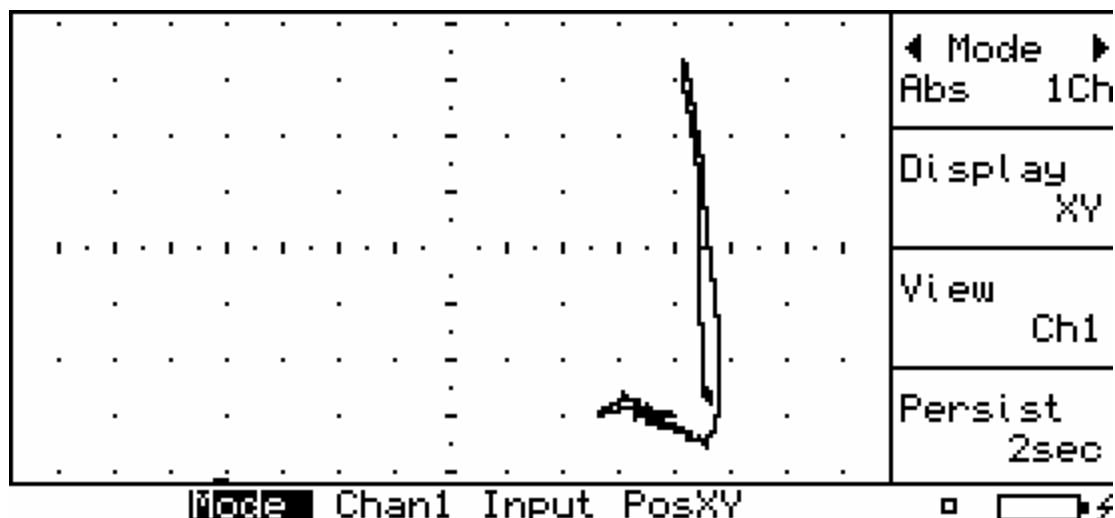


Figure B-102. MFEC indication stringer 4R at BS 620 rivet 5 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-112</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:  
 LOCATION:  
 JOB NAME:  
 TEST COMMENTS: MFEC str 4R at sta 620 rivet 5 aft side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	03 : 18	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs 1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	67.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	2sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

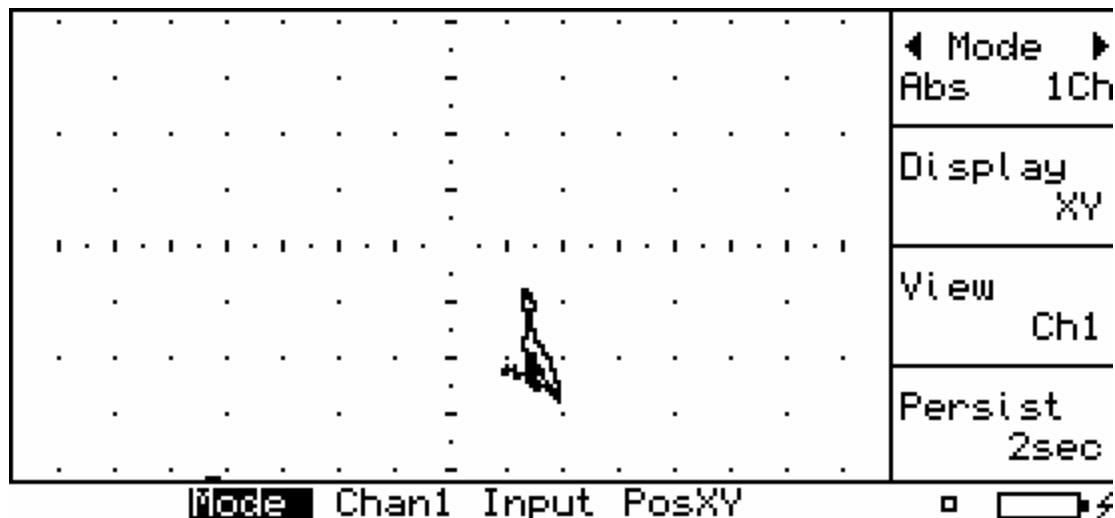


Figure B-103. MFEC indication stringer 4R at BS 620 rivet 5 aft side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-113</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:  
 LOCATION:  
 JOB NAME:  
 TEST COMMENTS: MFEC str 4R at sta 620 rivet 6 fwd side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	03 : 12	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs 1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	67.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	2sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

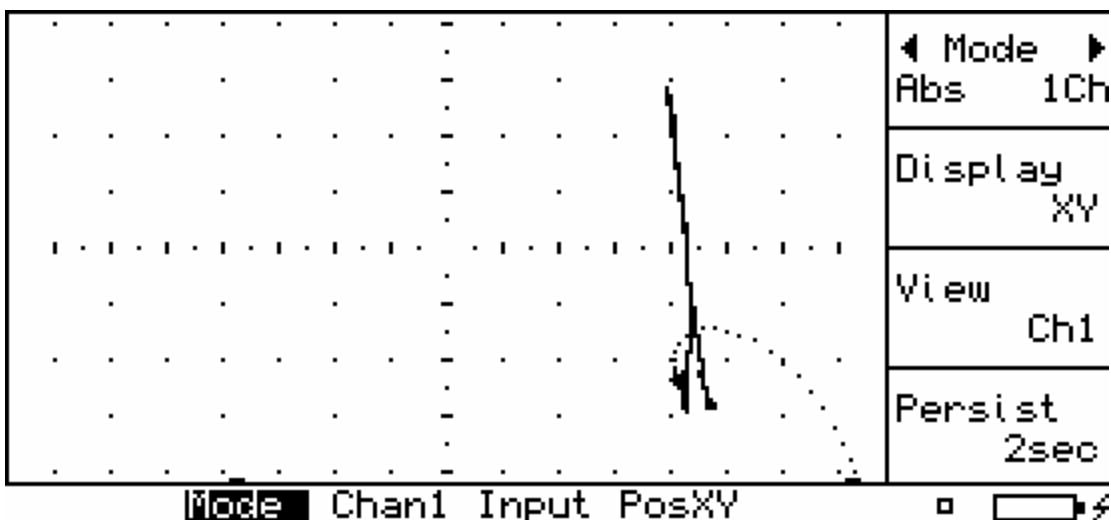


Figure B-104. MFEC indication stringer 4R at BS 620 rivet 6 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-114</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: MFEC str 4r at sta 620 rivet 6 aft side

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

Dump 03 : 14 09 Nov '02

Probe	PR	Standard	Mode	MO	Abs	1Ch
Display	DI	XY	View	VW		Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz	
Ch1 Gain	1G	67.0dB	Ch2 Gain	2G	20.0dB	
Ch1 Phase	1P	101.0°	Ch2 Phase	2P	0.0°	
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB	
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB	
Hi-pass	HP	DC	Lo-pass	LP	100 Hz	
X-pos 1	1H	60	X-pos 2	2H	1	
Y-pos 1	1V	-32	Y-pos 2	2V	0	
Alarm Shape	AT	Off	Apply to	AA	Both	
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent	
Top	TA	10	Left	LA	Off	
Right	RA	Off	Bottom	BA	Off	
Inner	IA	All Off	Outer	OA	55	
Start	SA	2.0°	End	EA	5.0°	
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y	
Persist	PE	2sec	Sweep	SD	1sec	
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V	
Inp. Gain	IP	0dB	Bal. Load	LO	120uH	
Graticule	GR	Rect.C_				

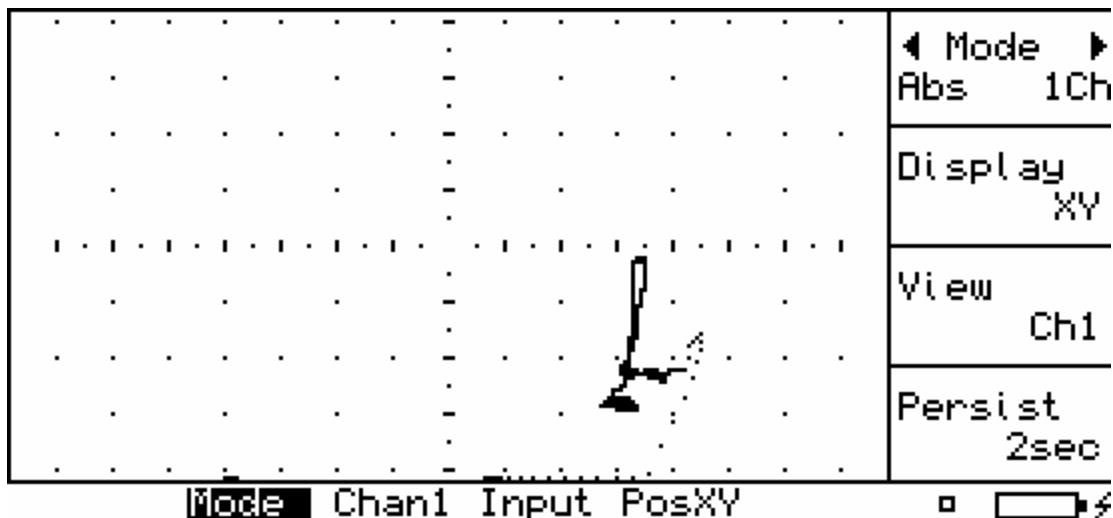


Figure B-105. MFEC indication stringer 4R at BS 620 rivet 6 aft side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-115</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:  
 LOCATION:  
 JOB NAME:  
 TEST COMMENTS: MFEC str 4R at sta 620 rivet 7 fwd side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	03 : 10	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs 1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	67.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	2sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

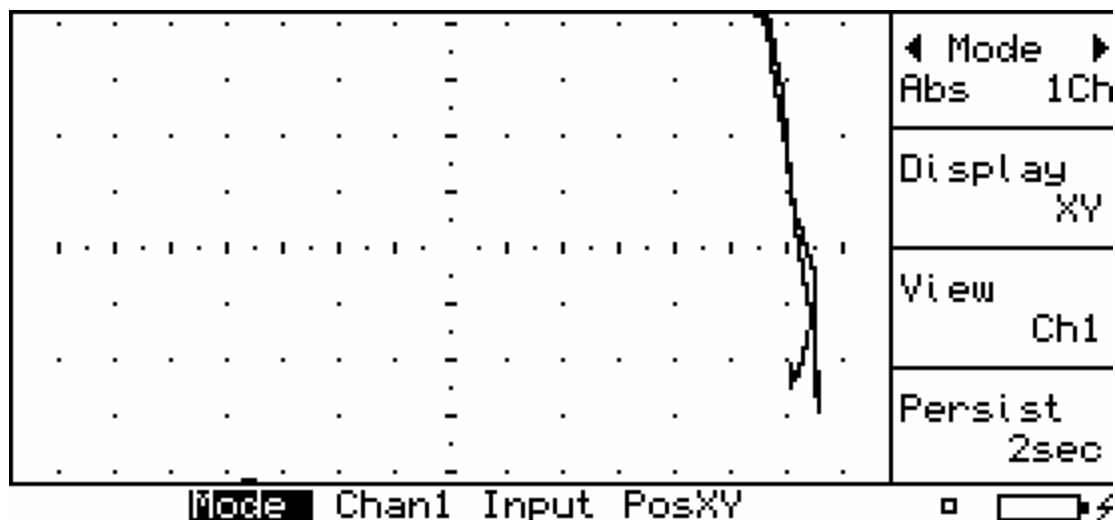


Figure B-106. MFEC indication stringer 4R at BS 620 rivet 7 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-116</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR:

INSTRUMENT SN:

CODE:  
 LOCATION:  
 JOB NAME:  
 TEST COMMENTS: MFEC str 4R at sta 620 rivet 9 fwd side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	03 : 08	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs 1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	67.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	2sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

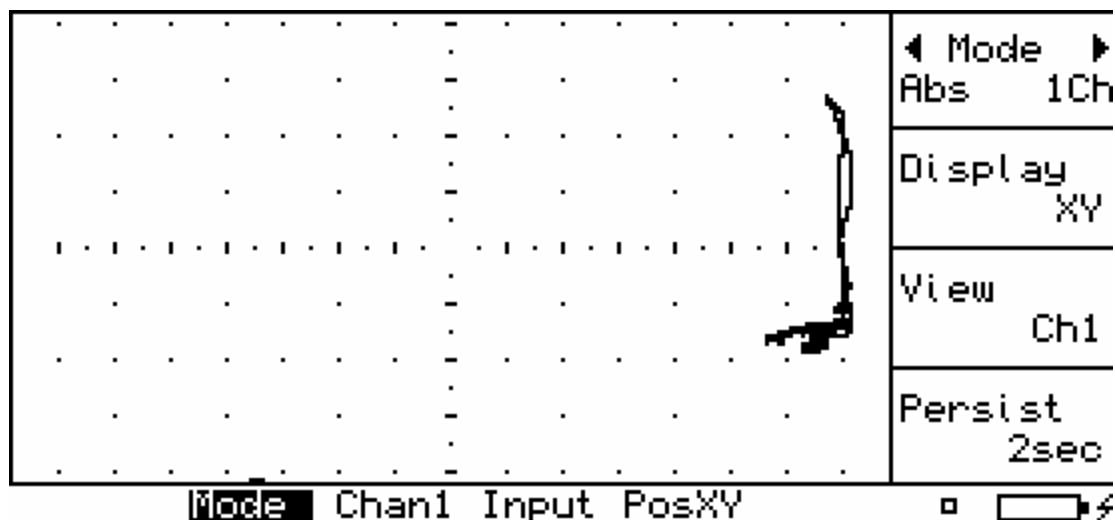


Figure B-107. MFEC indication stringer 4R at BS 620 rivet 9 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-117</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:  
 LOCATION:  
 JOB NAME:  
 TEST COMMENTS: MFEC str 4R at sta 660 rivet 8 fwd side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	03 : 02	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs 1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	67.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	2sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

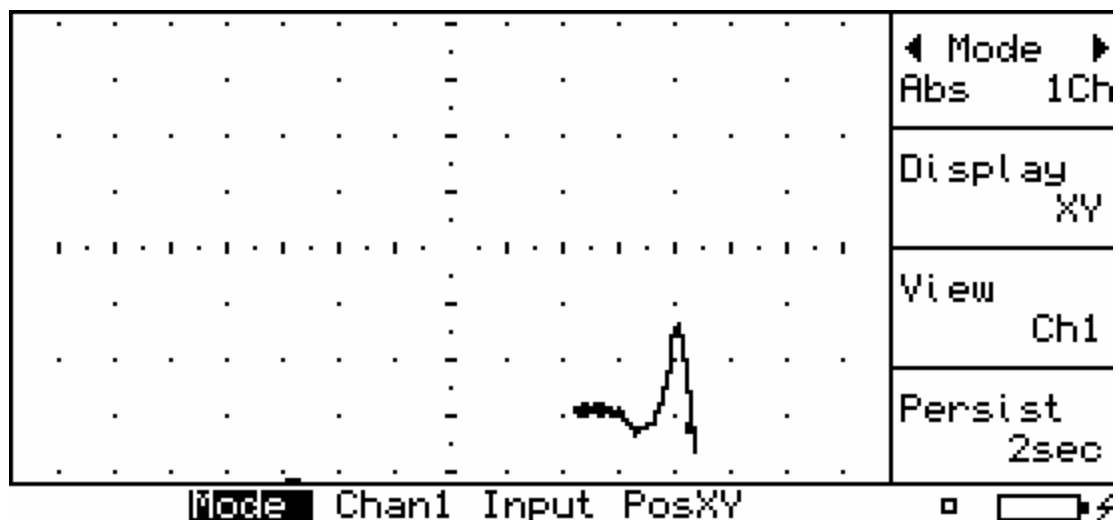


Figure B-108. MFEC indication stringer 4R at BS 660 rivet 8 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-118</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:  
 LOCATION:  
 JOB NAME:  
 TEST COMMENTS: MFEC str 4R at sta 660 rivet 8 aft side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	03 : 03	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs 1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	67.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	2sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

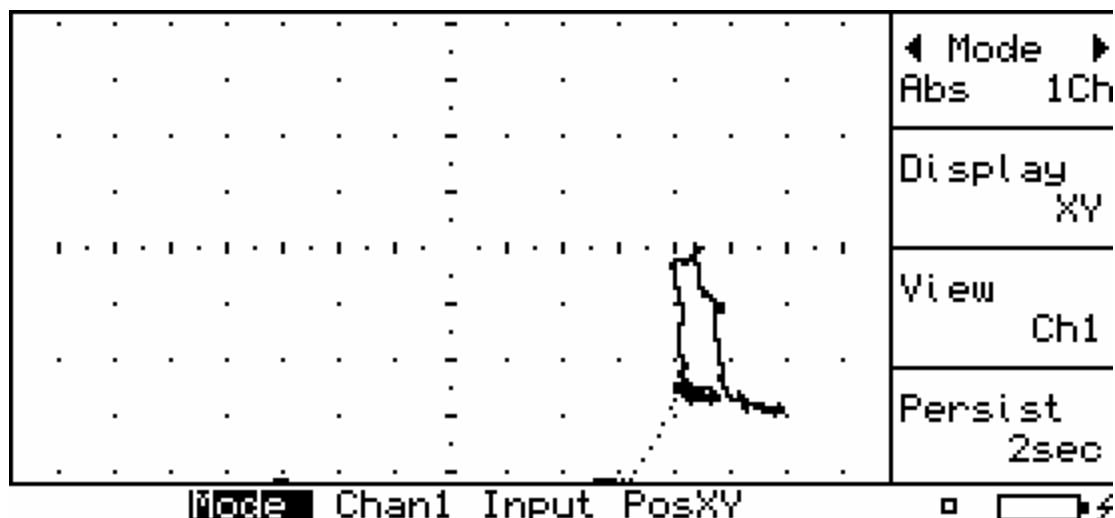


Figure B-109. MFEC indication stringer 4R at BS 660 rivet 8 aft side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-119</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:  
 LOCATION:  
 JOB NAME:  
 TEST COMMENTS: MFEC str 4R at sta 660 rivet 9 fwd side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	02 : 59	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs 1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	67.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	2sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

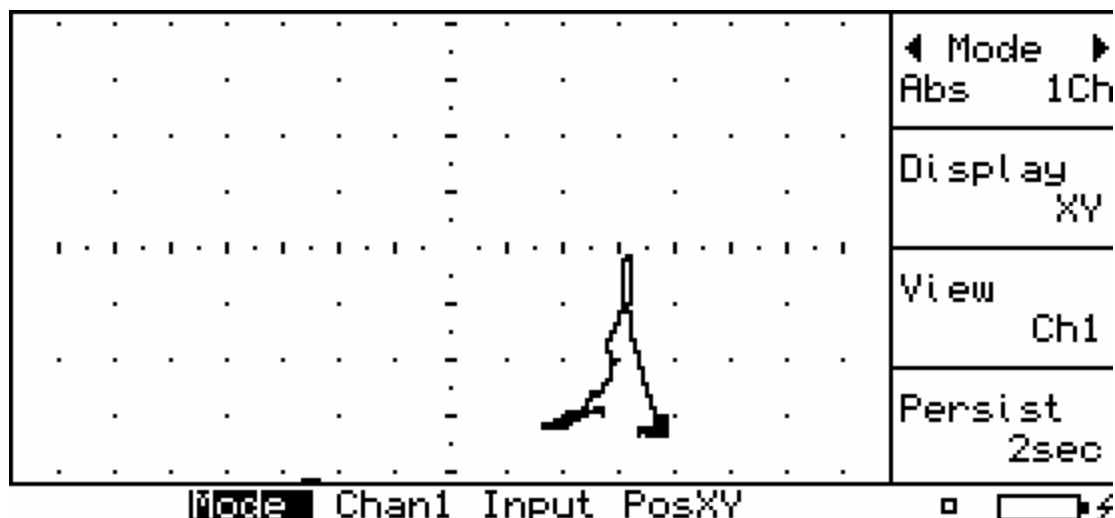


Figure B-110. MFEC indication stringer 4R at BS 660 rivet 9 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-120</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:  
 LOCATION:  
 JOB NAME:  
 TEST COMMENTS: MFEC str 4R at sta 660 rivet 13 fwd side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	02 : 55	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs 1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	67.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	2sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

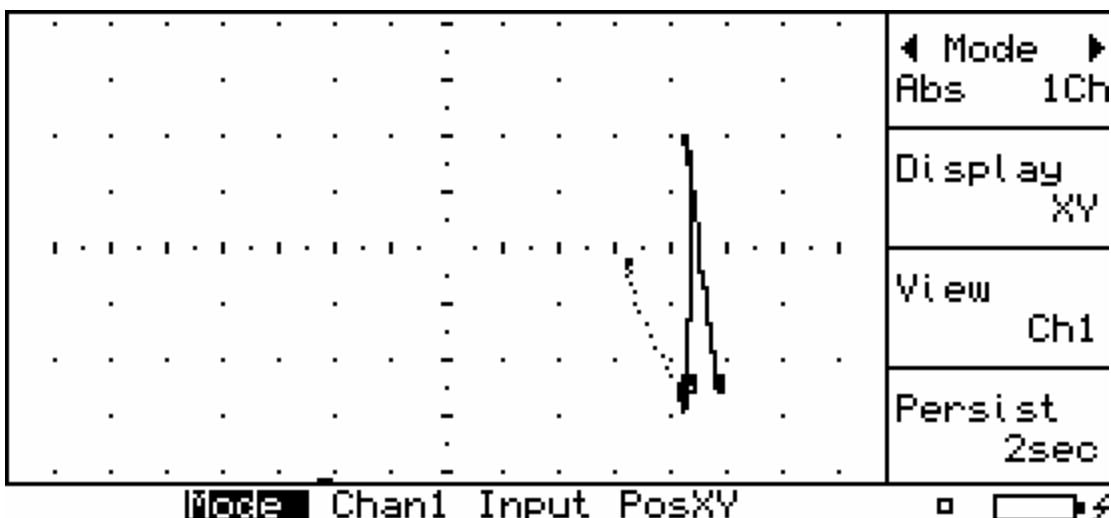


Figure B-111. MFEC indication stringer 4R at BS 660 rivet 13 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-121</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:  
 LOCATION:  
 JOB NAME:  
 TEST COMMENTS: MFEC str 4R at sta 660 rivet 13 aft side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	02 : 57	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs 1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	67.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	2sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

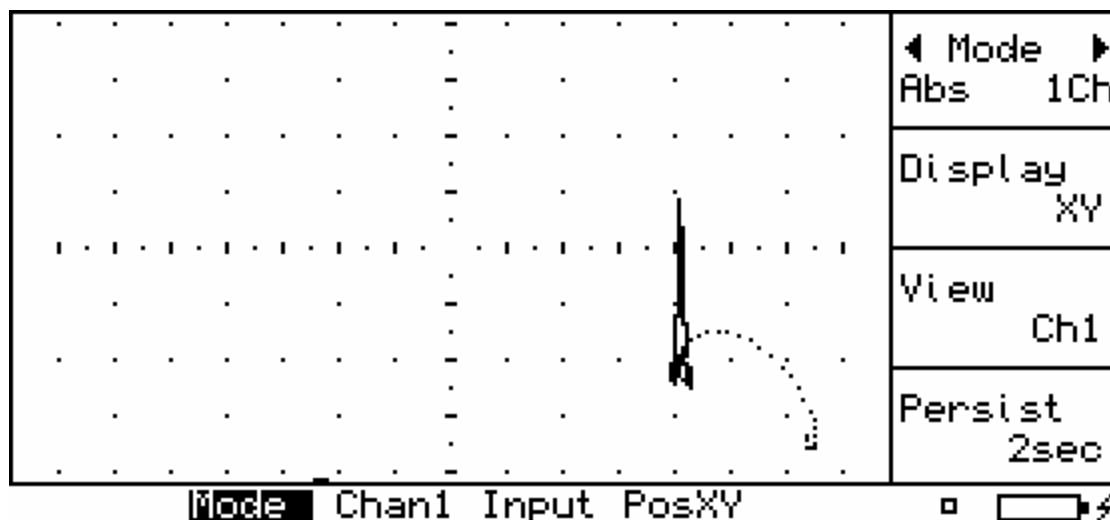


Figure B-112. MFEC indication stringer 4R at BS 660 rivet 13 aft side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-122</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:  
 LOCATION:  
 JOB NAME:  
 TEST COMMENTS: MFEC str 4R at sta 660 rivet 14 fwd side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	02 : 51	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	67.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	2sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

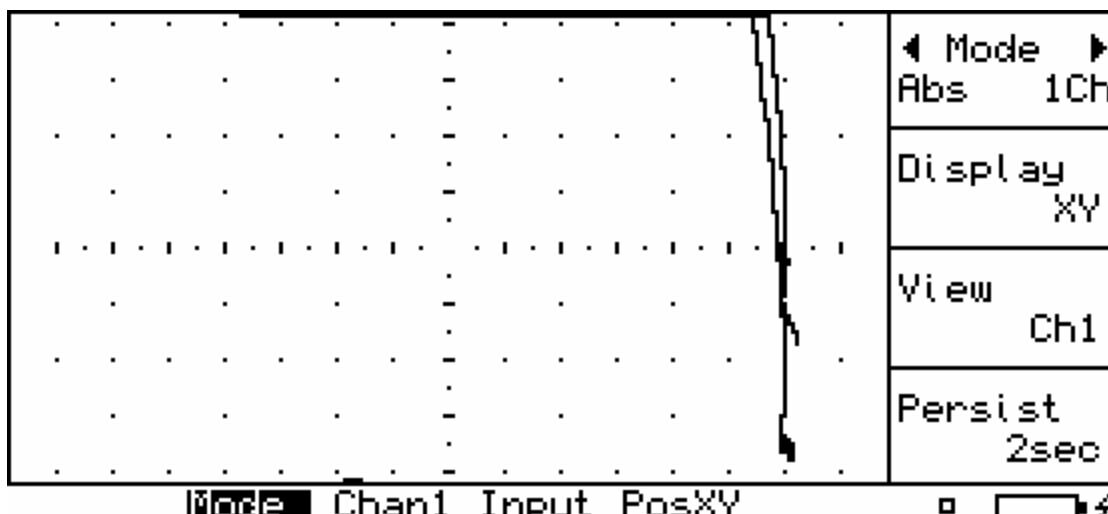


Figure B-113. MFEC indication stringer 4R at BS 660 rivet 14 fwd side.

## ENGINEERING DEPARTMENT

SHEET	B-123	NO.	4-086382-20
TOTAL	B-174		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:  
 LOCATION:  
 JOB NAME:  
 TEST COMMENTS: MFEC str 4R at sta 660 rivet 14 aft side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	02 : 53	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs 1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	67.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	2sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

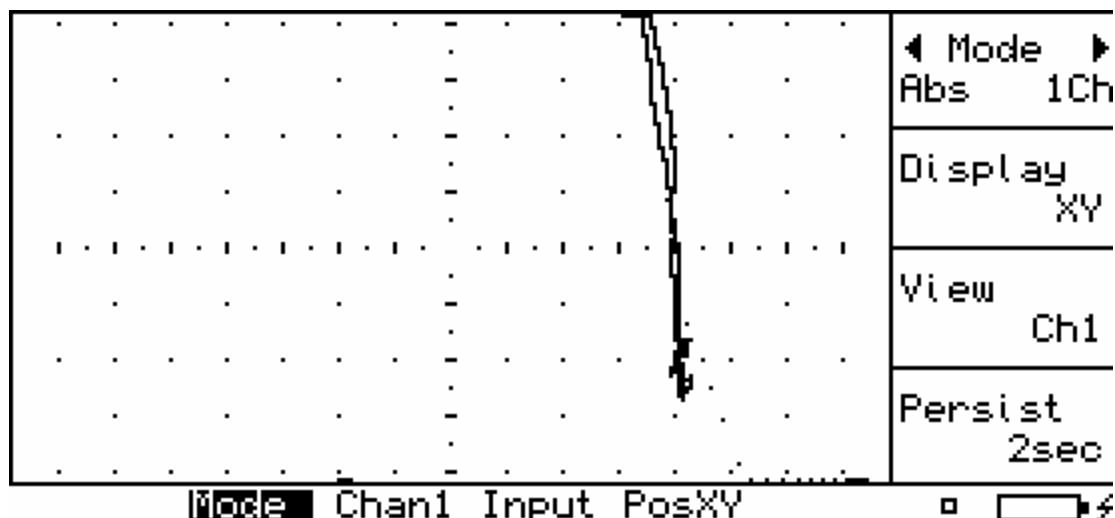


Figure B-114. MFEC indication stringer 4R at BS 660 rivet 14 aft side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-124</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:  
 LOCATION:  
 JOB NAME:  
 TEST COMMENTS: MFEC str 4R at sta 680 rivet 12 fwd side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	02 : 41	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs 1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	67.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	2sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

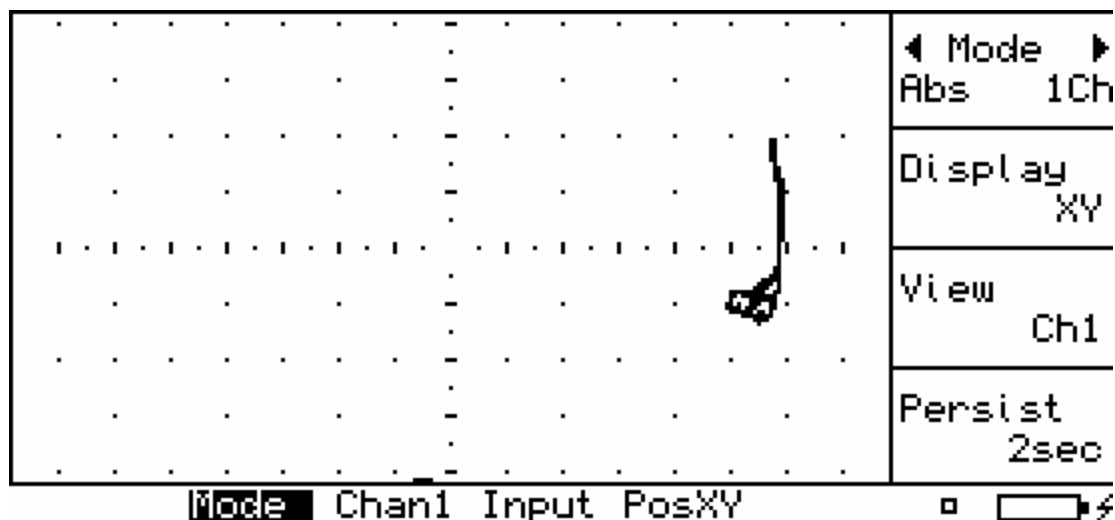


Figure B-115. MFEC indication stringer 4R at BS 680 rivet 12 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-125</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:  
 LOCATION:  
 JOB NAME:  
 TEST COMMENTS: MFEC str 4R at sta 680 rivet 12 aft side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	02 : 49	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs 1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	67.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	2sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

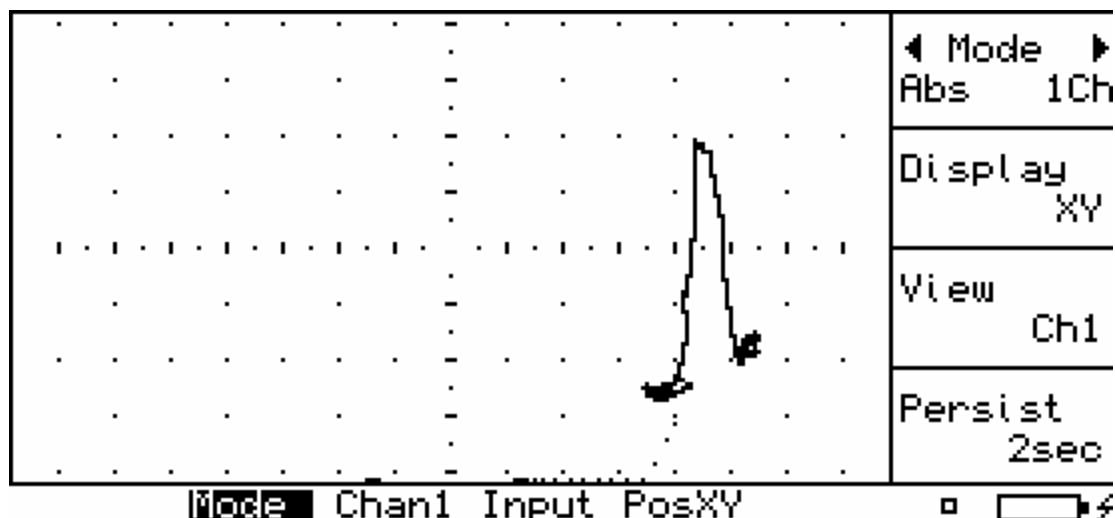


Figure B-116. MFEC indication stringer 4R at BS 680 rivet 12 aft side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-126</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:  
 LOCATION:  
 JOB NAME:  
 TEST COMMENTS: MFEC str 4R at sta 700 rivet 6 fwd side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	03 : 38	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs 1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	67.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	2sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

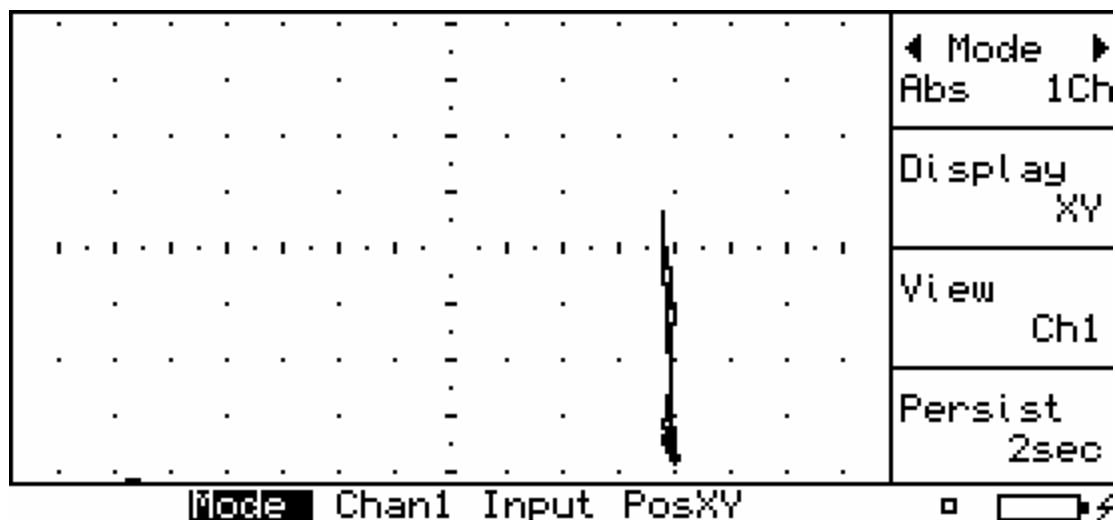


Figure B-117. MFEC indication stringer 4R at BS 700 rivet 6 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-127</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR: INSTRUMENT SN:  
CODE: PROBE SN:  
LOCATION: CAL BLOCK SN:  
JOB NAME:  
TEST COMMENTS: MFEC str 4R at sta 700 rivet 8 fwd side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	02 : 36	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	67.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	2sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

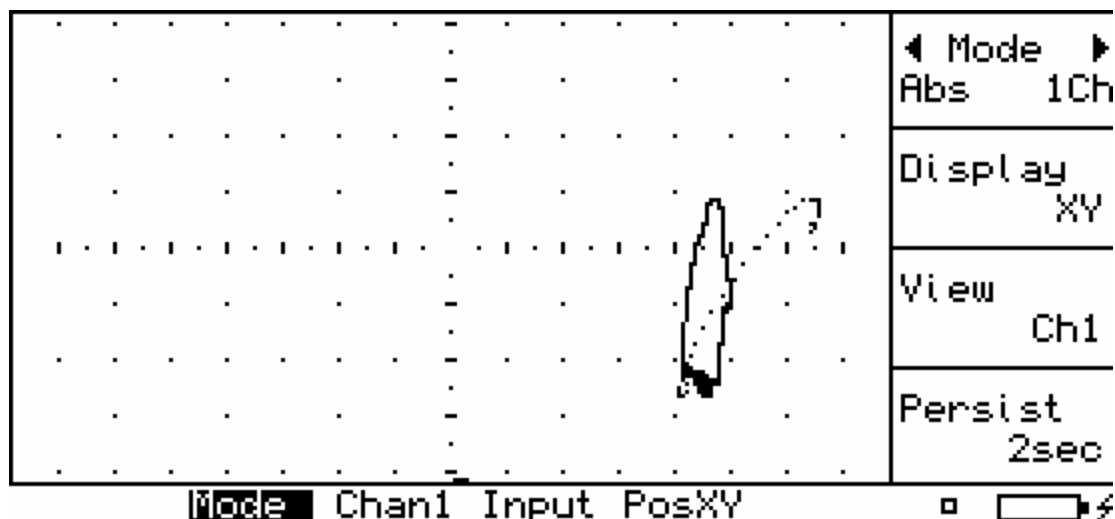


Figure B-118. MFEC indication stringer 4R at BS 700 rivet 8 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-128</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR: INSTRUMENT SN:  
CODE: PROBE SN:  
LOCATION: CAL BLOCK SN:  
JOB NAME:  
TEST COMMENTS: MFEC str 4R sta 700 rivet 9 fwd side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	02 : 33	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs 1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	67.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	2sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

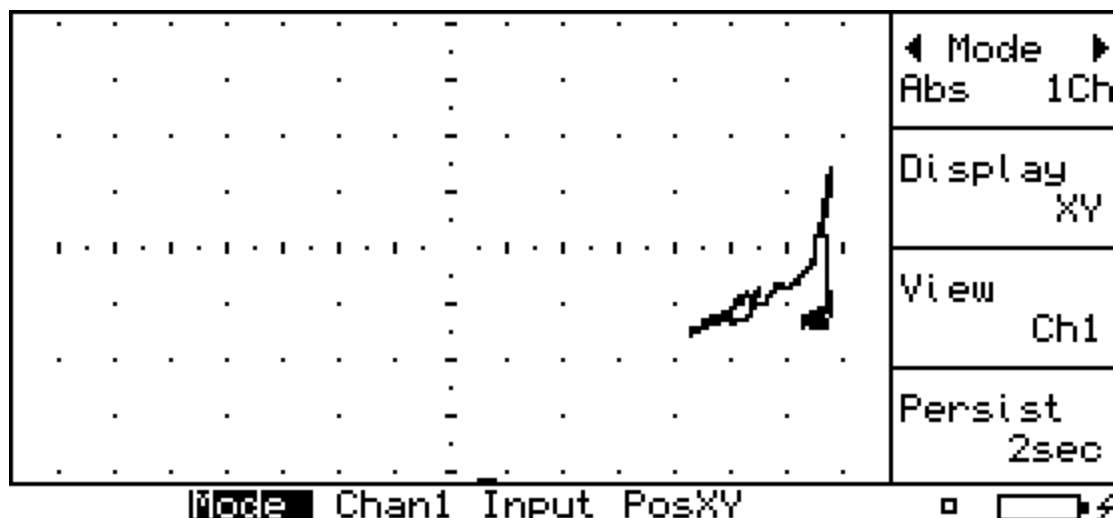


Figure B-119. MFEC indication stringer 4R at BS 700 rivet 9 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-129</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR: INSTRUMENT SN:  
CODE: PROBE SN:  
LOCATION: CAL BLOCK SN:  
JOB NAME:  
TEST COMMENTS: MFEC str 4r at sta 700 rivet 10 fwd side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	02 : 17	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs 1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	67.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	2sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

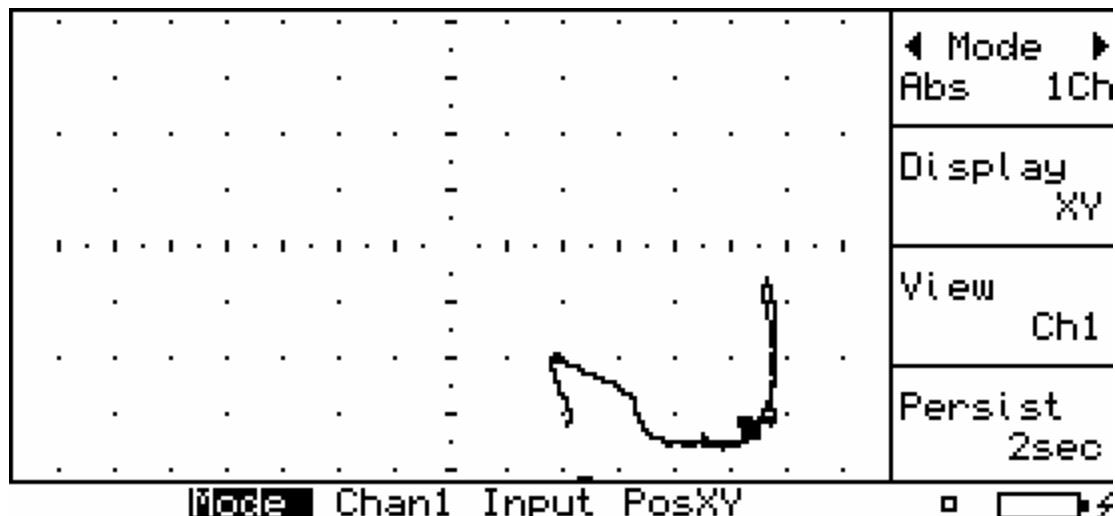


Figure B-120. MFEC indication stringer 4R at BS 700 rivet 10 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-130</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR: J. Bohler INSTRUMENT SN:  
 CODE: PROBE SN:  
 LOCATION: CAL BLOCK SN:  
 JOB NAME:  
 TEST COMMENTS: MFEC str 4R at sta 700 rivet 10 aft side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	01 : 25	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs 1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	67.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	2sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

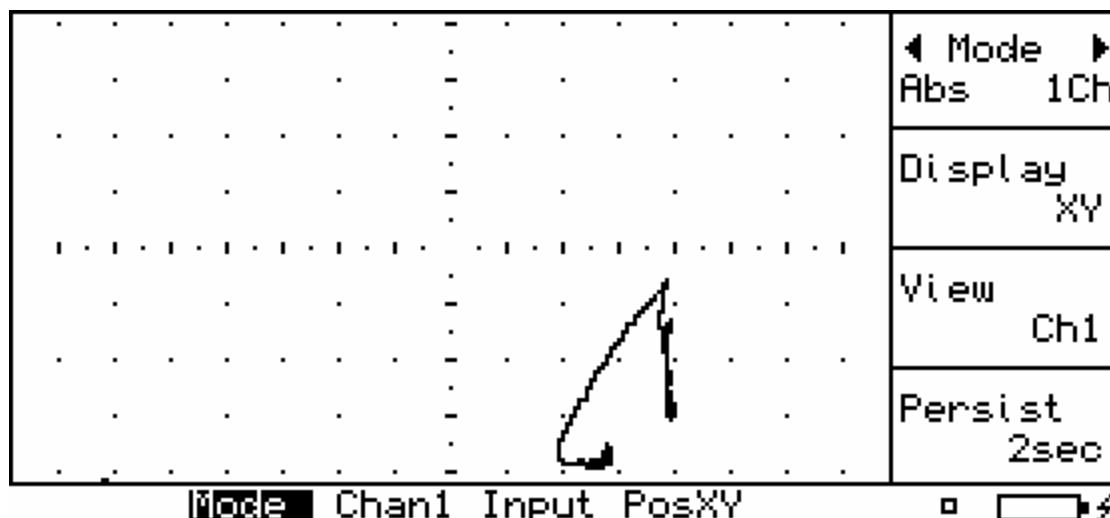


Figure B-121. MFEC indication stringer 4R at BS 700 rivet 10 aft side

## ENGINEERING DEPARTMENT

SHEET	<b>B-131</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:  
 LOCATION:  
 JOB NAME:  
 TEST COMMENTS: MFEC str 4R at sta 700 rivet 11 fwd side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	02 : 15	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs 1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	67.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	2sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

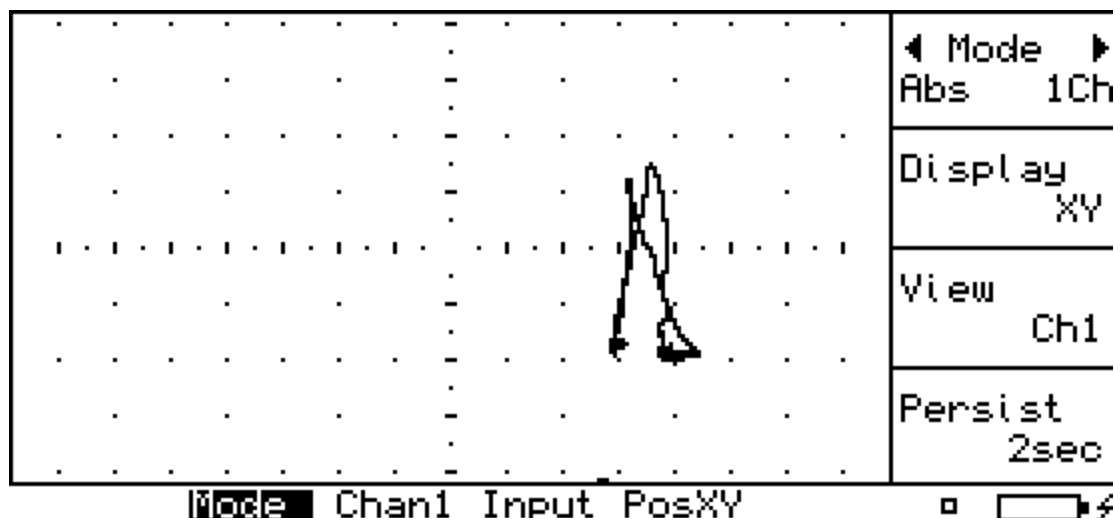


Figure B-122. MFEC indication stringer 4R at BS 700 rivet 11 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-132</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR: INSTRUMENT SN:  
CODE: PROBE SN:  
LOCATION: CAL BLOCK SN:  
JOB NAME:  
TEST COMMENTS: MFEC str 4R at sta 720 rivet 4 fwd side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	02 : 11	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs 1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	67.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	2sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

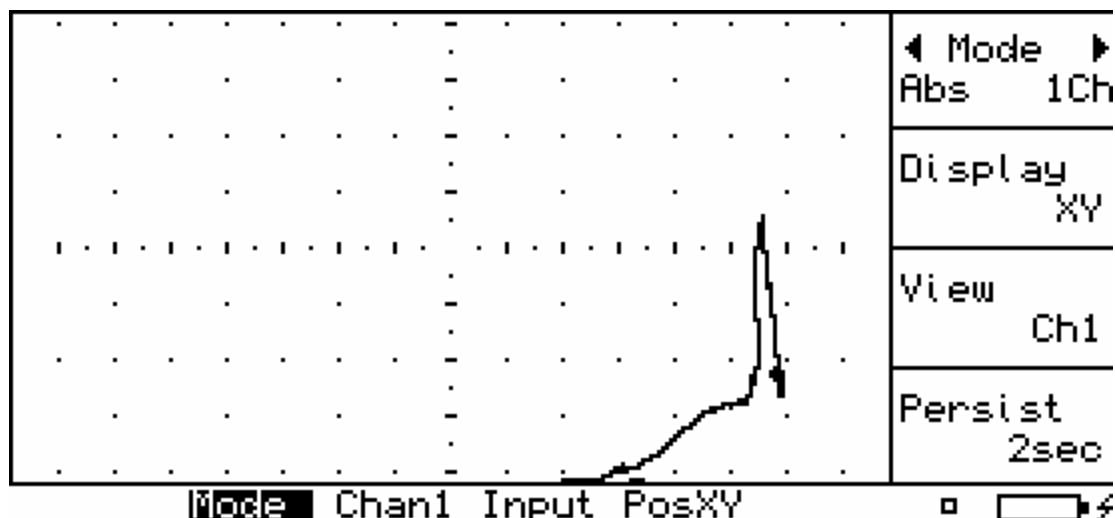


Figure B-123. MFEC indication stringer 4R at BS 720 rivet 4 fwd side.

## ENGINEERING DEPARTMENT

SHEET	B-133	NO.	4-086382-20
TOTAL	B-174		
ISSUE DATE	12/17/2002		

OPERATOR: INSTRUMENT SN:  
CODE: PROBE SN:  
LOCATION: CAL BLOCK SN:  
JOB NAME:  
TEST COMMENTS: MFEC str 4R at sta 720 rivet 4 aft side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	02 : 13	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs 1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	67.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	2sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

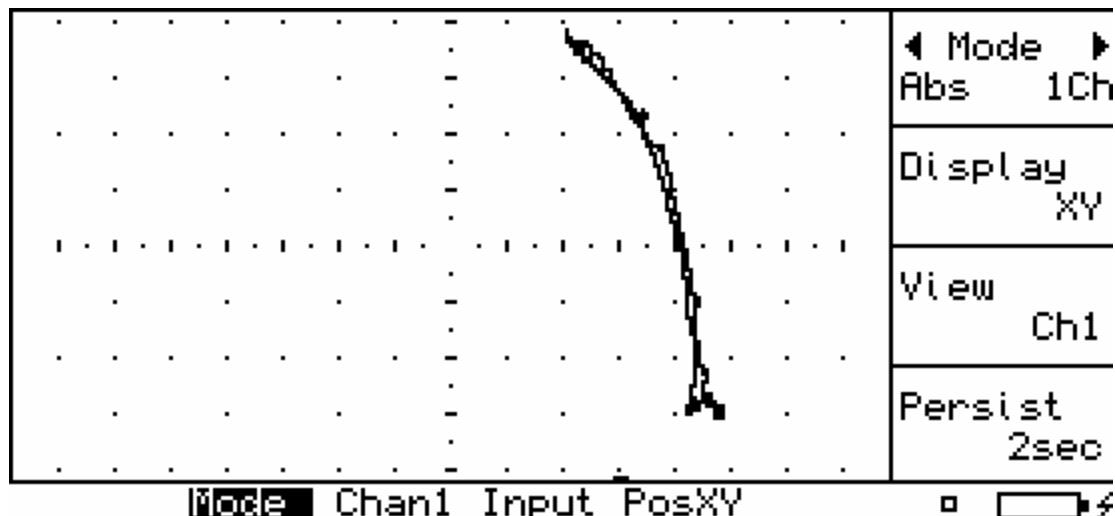


Figure B-124. MFEC indication stringer 4R at BS 720 rivet 4 aft side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-134</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR: INSTRUMENT SN:  
CODE: PROBE SN:  
LOCATION: CAL BLOCK SN:  
JOB NAME:  
TEST COMMENTS: MFEC str 4R at sta 720 rivet 5 fwd side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	02 : 00	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs 1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	67.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	2sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

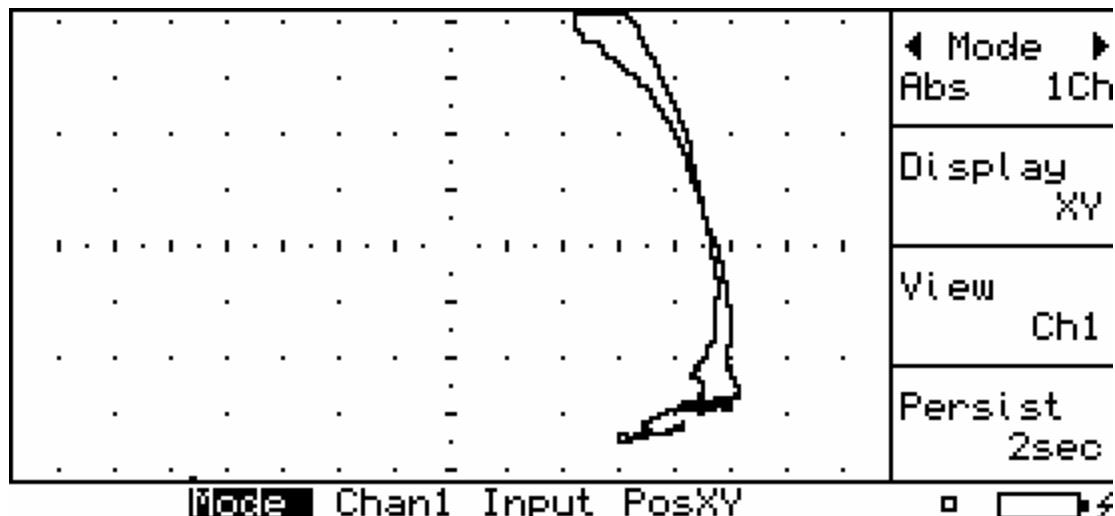


Figure B-125. MFEC indication stringer 4R at BS 720 rivet 5 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-135</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR: INSTRUMENT SN:  
CODE: PROBE SN:  
LOCATION: CAL BLOCK SN:  
JOB NAME:  
TEST COMMENTS: MFEC str 4R at sta 720 rivet 5 aft side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	02 : 02	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs 1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	67.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	2sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

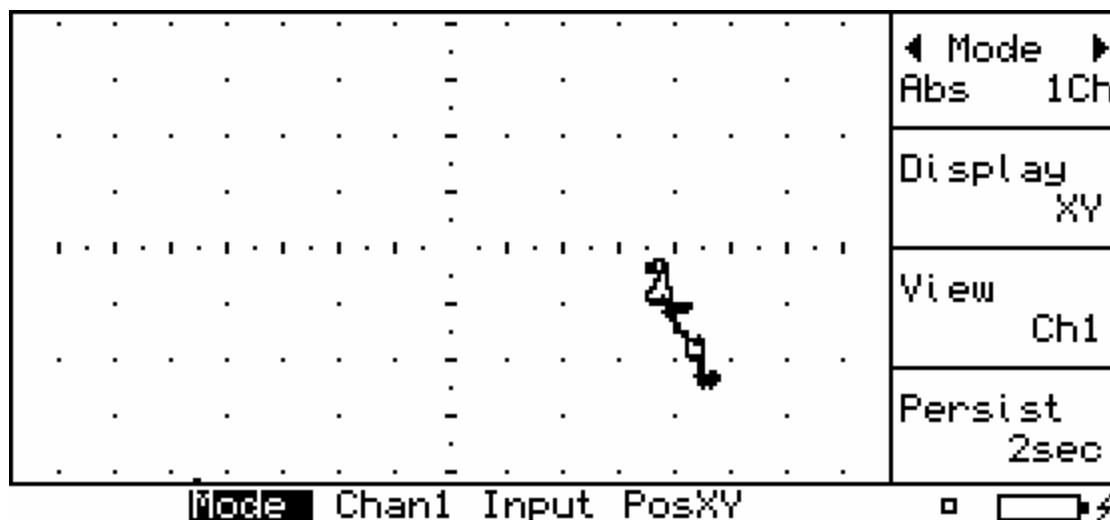


Figure B-126. MFEC indication stringer 4R at BS 720 rivet 5 aft side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-136</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR: INSTRUMENT SN:  
CODE: PROBE SN:  
LOCATION: CAL BLOCK SN:  
JOB NAME:  
TEST COMMENTS: MFEC str 4R at sta 720 rivet 6 fwd side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	01 : 54	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs 1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	67.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	2sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

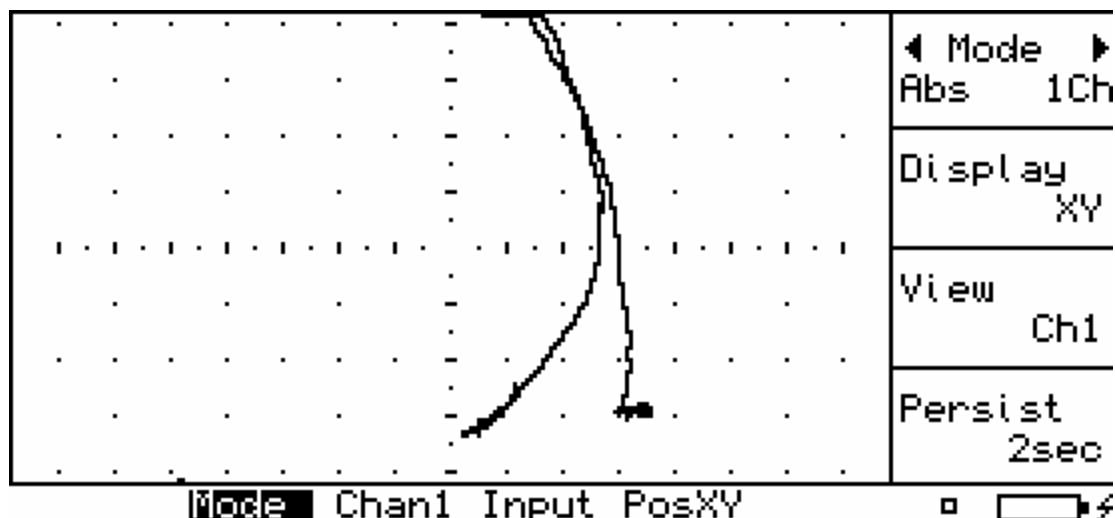


Figure B-127. MFEC indication stringer 4R at BS 720 rivet 6 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-137</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR: INSTRUMENT SN:  
CODE: PROBE SN:  
LOCATION: CAL BLOCK SN:  
JOB NAME:  
TEST COMMENTS: MFEC str 4R at sta 720 rivt 6 aft side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	01 : 57	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs 1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	67.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	2sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

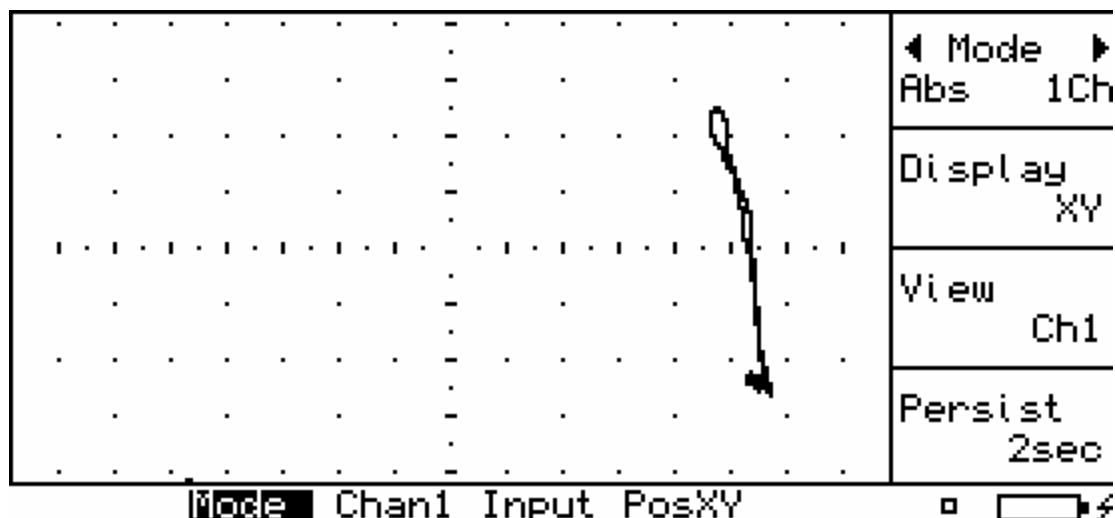


Figure B-128. MFEC indication stringer 4R at BS 720 rivet 6 aft side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-138</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR: INSTRUMENT SN:  
CODE: PROBE SN:  
LOCATION: CAL BLOCK SN:  
JOB NAME:  
TEST COMMENTS: MFEC str 4R at sta 720 rivet 7 fwd side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	01 : 47	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs 1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	67.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	2sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

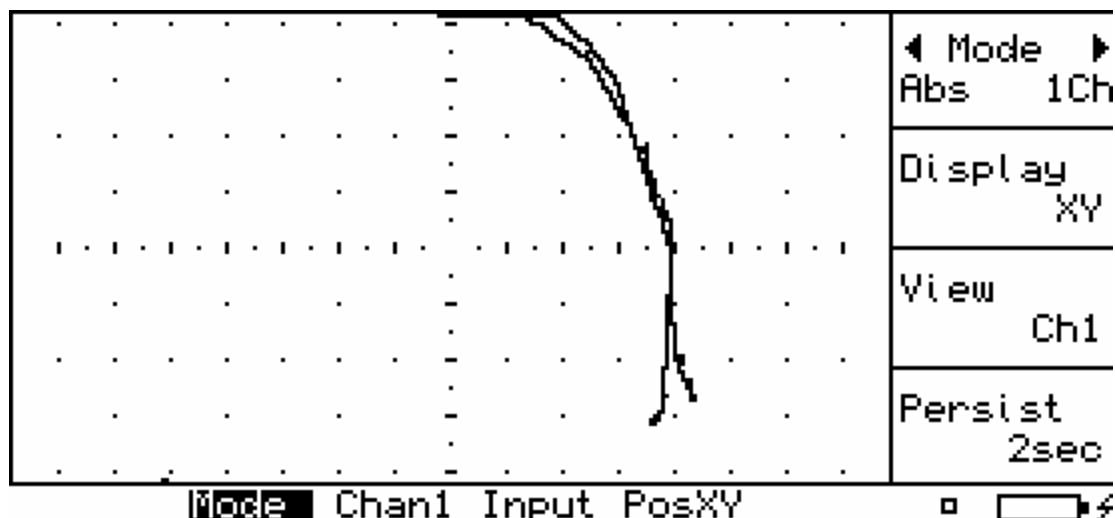


Figure B-129. MFEC indication stringer 4R at BS 720 rivet 7 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-139</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR: INSTRUMENT SN:  
CODE: PROBE SN:  
LOCATION: CAL BLOCK SN:  
JOB NAME:  
TEST COMMENTS: MFEC str 4R at sta 720 rivet 7 aft side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	01 : 50	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs 1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	67.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	2sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

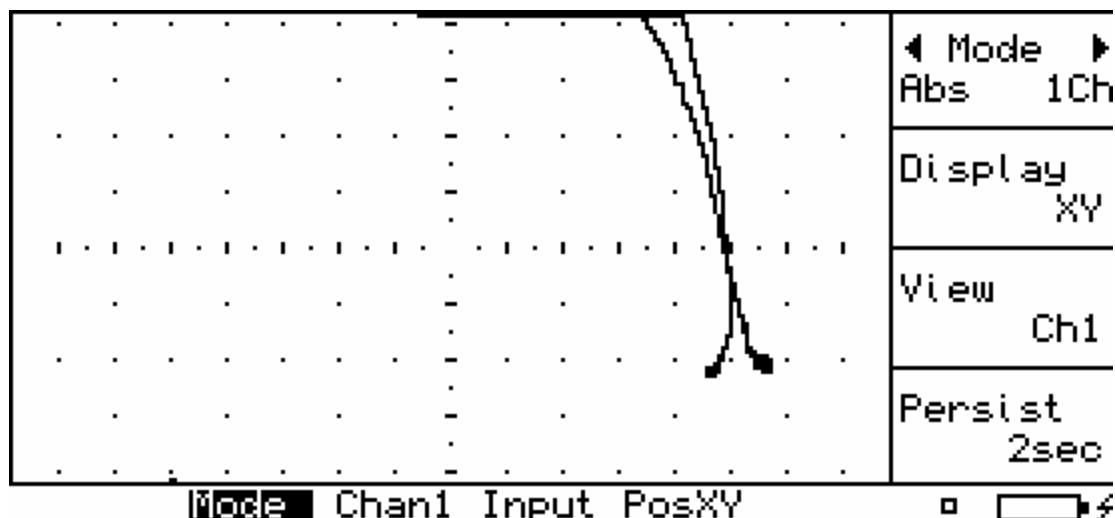


Figure B-130. MFEC indication stringer 4R at BS 720 rivet 7 aft side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-140</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR: INSTRUMENT SN:  
CODE: PROBE SN:  
LOCATION: CAL BLOCK SN:  
JOB NAME:  
TEST COMMENTS: MFEC str 4R at sta 720 rivet 8 fwd side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	01 : 41	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs 1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	67.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	2sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

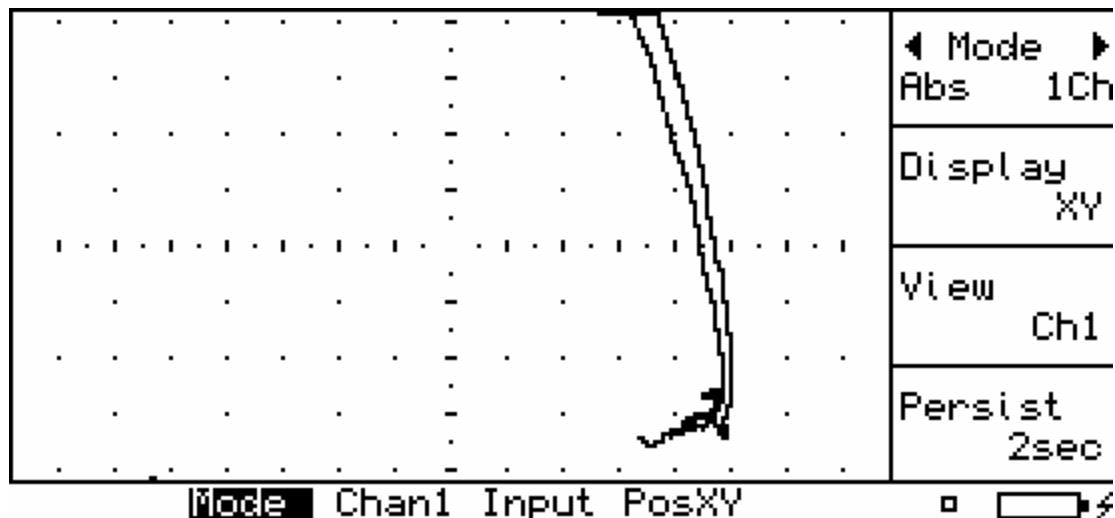


Figure B-131. MFEC indication stringer 4R at BS 720 rivet 8 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-141</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR: INSTRUMENT SN:  
CODE: PROBE SN:  
LOCATION: CAL BLOCK SN:  
JOB NAME:  
TEST COMMENTS: MFEC str 4R at sta 720 rivet 8 aft side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	01 : 44	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs 1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	67.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	2sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

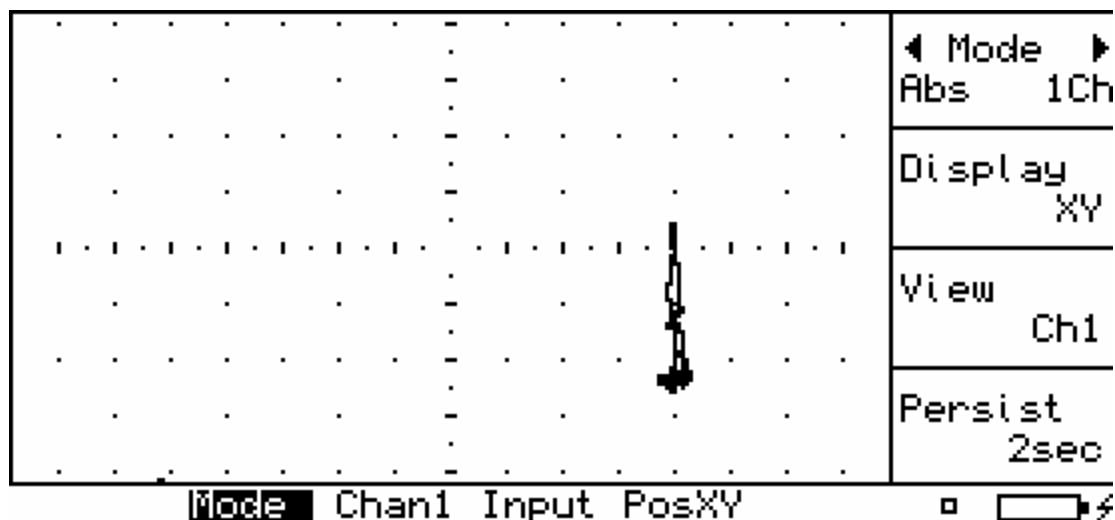


Figure B-132. MFEC indication stringer 4R at BS 720 rivet 8 aft side.

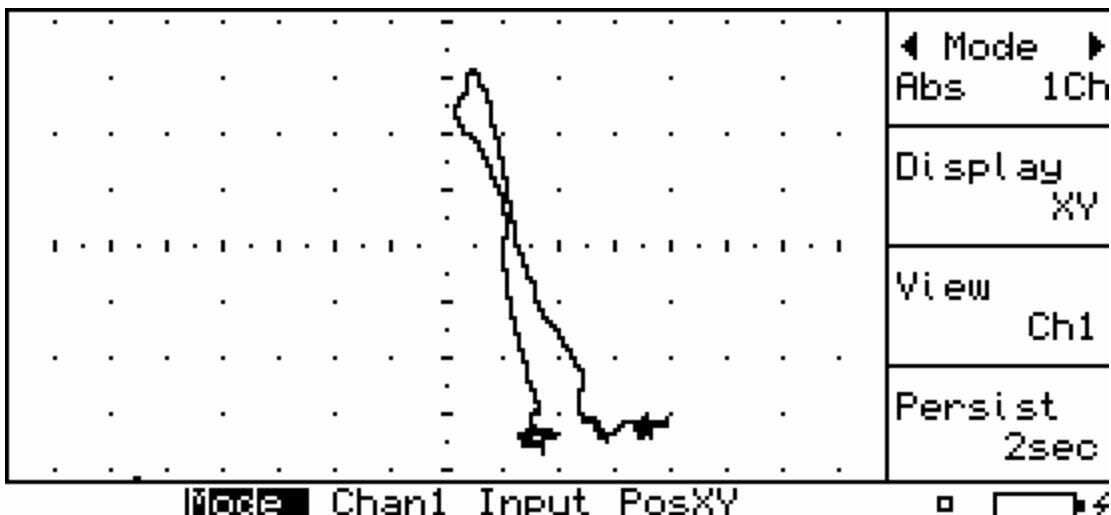
## ENGINEERING DEPARTMENT

SHEET	<b>B-142</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR: INSTRUMENT SN:  
CODE: PROBE SN:  
LOCATION: CAL BLOCK SN:  
JOB NAME:  
TEST COMMENTS: MFEC str 4R at sta 720 rivet 9 aft side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	01 : 37	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs Ch1 Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	67.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	2sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			



ENGINEERING DEPARTMENT

SHEET	<b>B-143</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

Figure B-133. MFEC indication stringer 4R at BS 720 rivet 9 aft side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-144</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE		12/17/2002	

OPERATOR: J. Bohler INSTRUMENT SN:  
CODE: PROBE SN:  
LOCATION: CAL BLOCK SN:  
JOB NAME:  
TEST COMMENTS: MFEC str 4R at sta 720 rivet 10 fwd side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	01 : 20	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs 1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	67.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	2sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

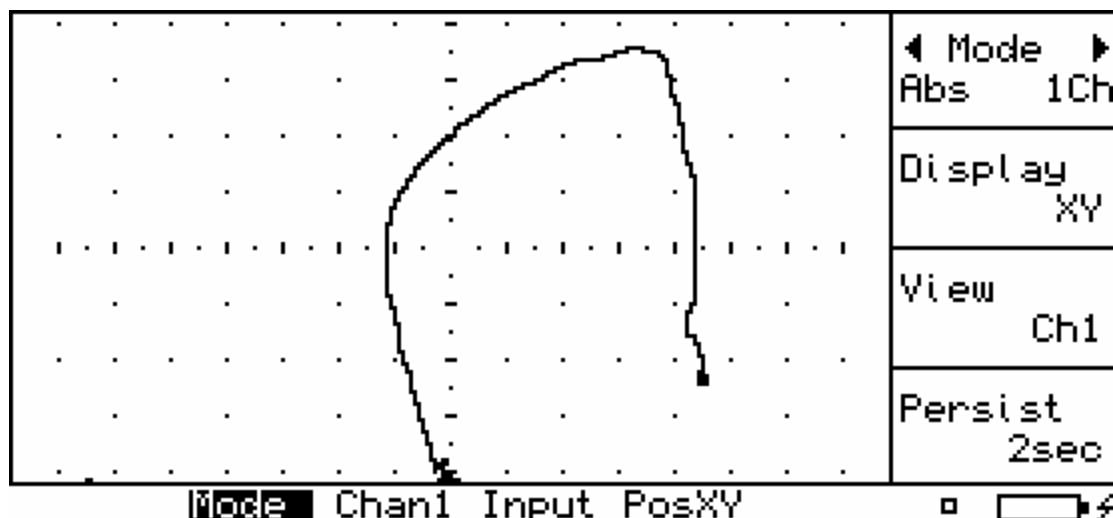


Figure B-134. MFEC indication stringer 4R at BS 720 rivet 10 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-145</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR: J. Bohler                    INSTRUMENT SN:  
CODE:                                    PROBE SN:  
LOCATION:                            CAL BLOCK SN:  
JOB NAME:  
TEST COMMENTS: MFEC str 4R at sta 720 rivet 12 aft side

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	01 : 15	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs 1Ch Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	40kHz
Ch1 Gain	1G	67.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	101.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	100 Hz
X-pos 1	1H	60	X-pos 2	2H	1
Y-pos 1	1V	-32	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Silent
Top	TA	10	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	All Off	Outer	OA	55
Start	SA	2.0°	End	EA	5.0°
Analogue 1 Out	A1	Ch1 X	Analogue 2 Out	A2	Ch1 Y
Persist	PE	2sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.C_			

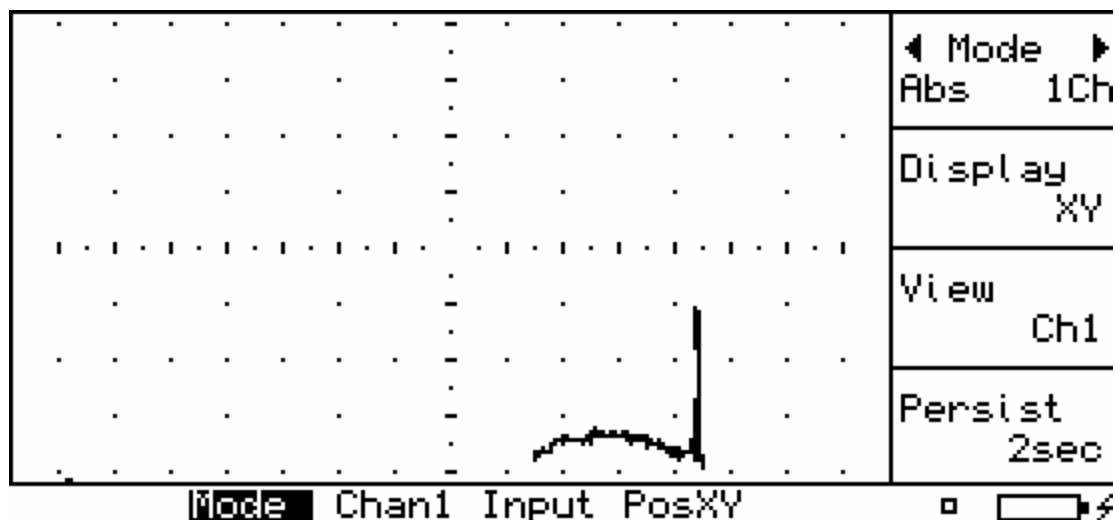


Figure B-135. MFEC indication stringer 4R at BS 720 rivet 12 aft side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-146</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 720a rivet 5 fwd

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

Dump 15 : 52 09 Nov '02

Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	200 Hz
X-pos 1	1H	65	X-pos 2	2H	0
Y-pos 1	1V	-35	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone
Top	TA	-14	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	20	Outer	OA	Off
Start	SA	9.0°	End	EA	315.0°
Analogue 1 Out	A1	Off	Analogue 2 Out	A2	Off
Persist	PE	10sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.A			

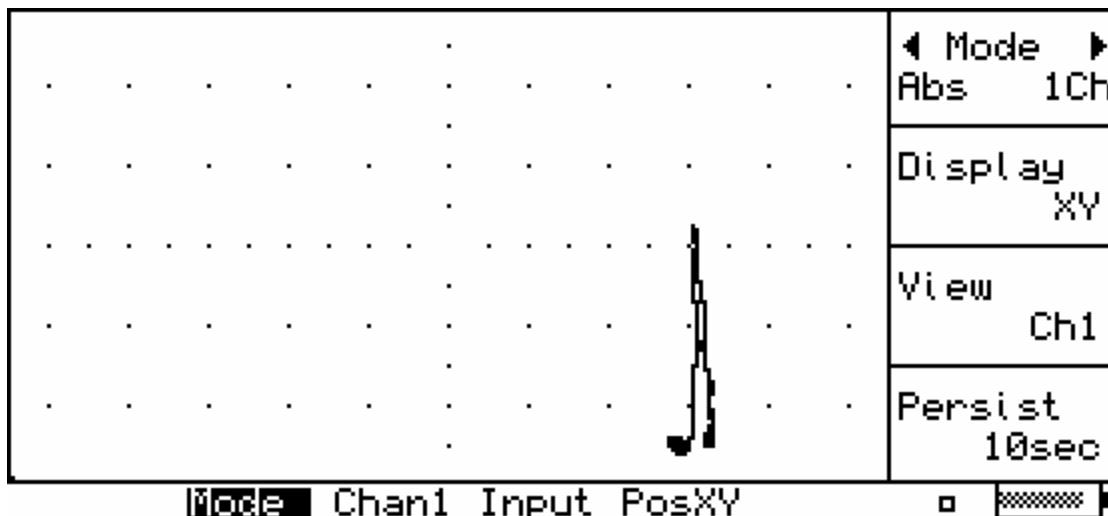


Figure B-136. MFEC indication stringer 4R at BS 720A rivet 5 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-147</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS:mfec str 4r sta 720a rivet 5 aft

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump 15 : 55 09 Nov '02

Probe	PR	Standard	Mode	MO	Abs	1Ch
Display	DI	XY	View	VW		Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz	
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB	
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°	
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB	
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB	
Hi-pass	HP	DC	Lo-pass	LP	200 Hz	
X-pos 1	1H	65	X-pos 2	2H	0	
Y-pos 1	1V	-35	Y-pos 2	2V	0	
Alarm Shape	AT	Off	Apply to	AA	Both	
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone	
Top	TA	-14	Left	LA	Off	
Right	RA	Off	Bottom	BA	Off	
Inner	IA	20	Outer	OA	Off	
Start	SA	9.0°	End	EA	315.0°	
Analogue 1 Out	A1	Off	Analogue 2 Out	A2		Off
Persist	PE	10sec	Sweep	SD	1sec	
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V	
Inp. Gain	IP	0dB	Bal. Load	LO	120uH	
Graticule	GR	Rect.A				

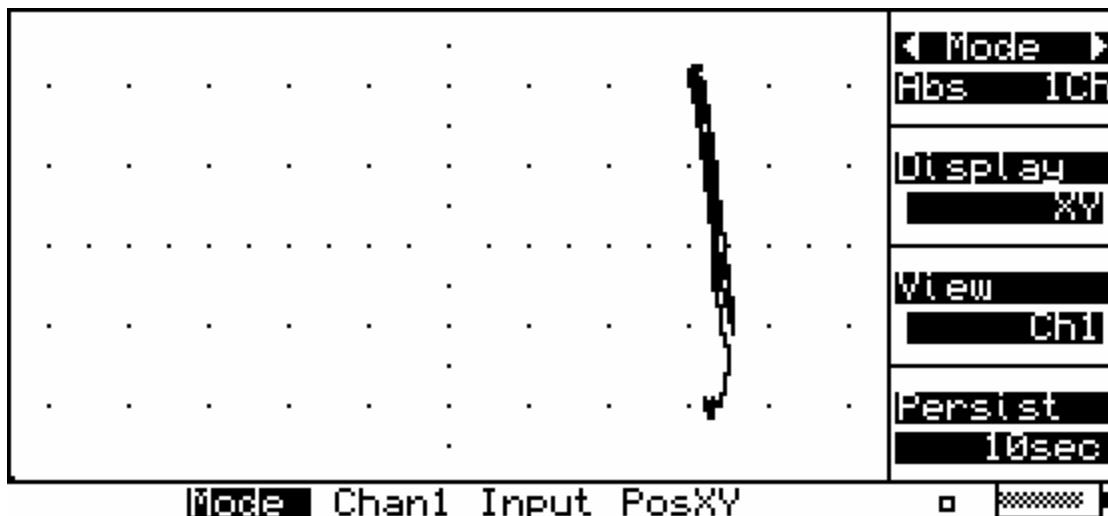


Figure B-137. MFEC indication stringer 4R at BS 720A rivet 5 aft side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-148</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 720a rivet 6 fwd

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

Dump	15 : 51	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	200 Hz
X-pos 1	1H	65	X-pos 2	2H	0
Y-pos 1	1V	-35	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone
Top	TA	-14	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	20	Outer	OA	Off
Start	SA	9.0°	End	EA	315.0°
Analogue 1 Out	A1	Off	Analogue 2 Out	A2	Off
Persist	PE	10sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.A			

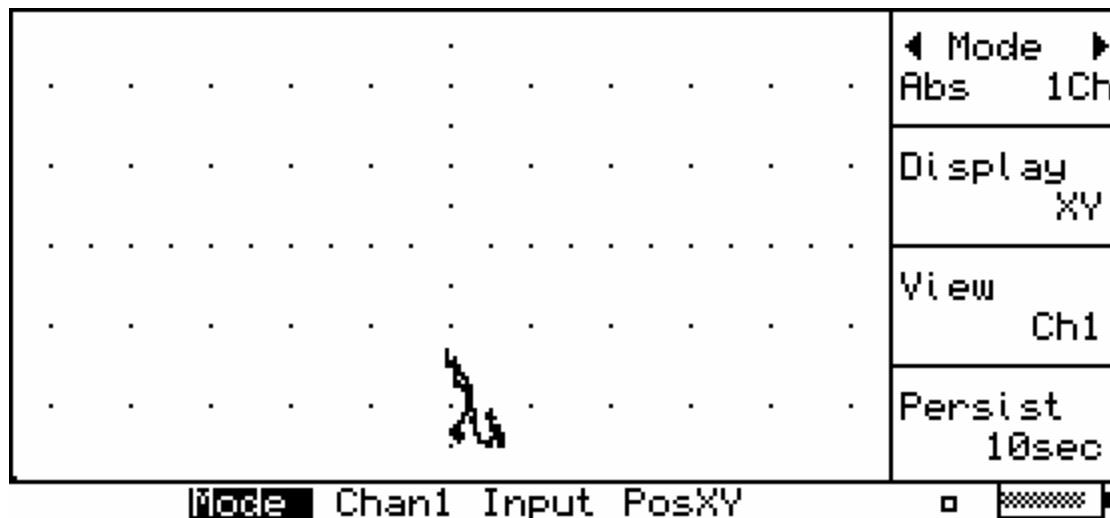


Figure B-138. MFEC indication stringer 4R at BS 720A rivet 6 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-149</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 720a rivet 7 fwd

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

Dump	15 : 48	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	200 Hz
X-pos 1	1H	65	X-pos 2	2H	0
Y-pos 1	1V	-35	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone
Top	TA	-14	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	20	Outer	OA	Off
Start	SA	9.0°	End	EA	315.0°
Analogue 1 Out	A1	Off	Analogue 2 Out	A2	Off
Persist	PE	10sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.A			

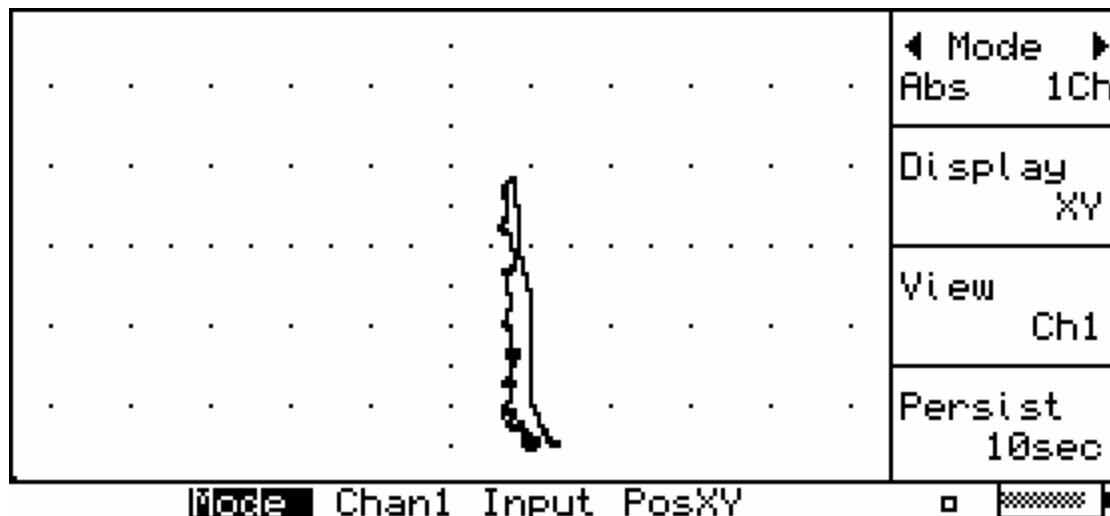


Figure B-139. MFEC indication stringer 4R at BS 720A rivet 7 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-150</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 720a rivet 7 aft

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

Dump	15 : 49	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs Ch1 Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	200 Hz
X-pos 1	1H	65	X-pos 2	2H	0
Y-pos 1	1V	-35	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone
Top	TA	-14	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	20	Outer	OA	Off
Start	SA	9.0°	End	EA	315.0°
Analogue 1 Out	A1	Off	Analogue 2 Out	A2	Off
Persist	PE	10sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.A			

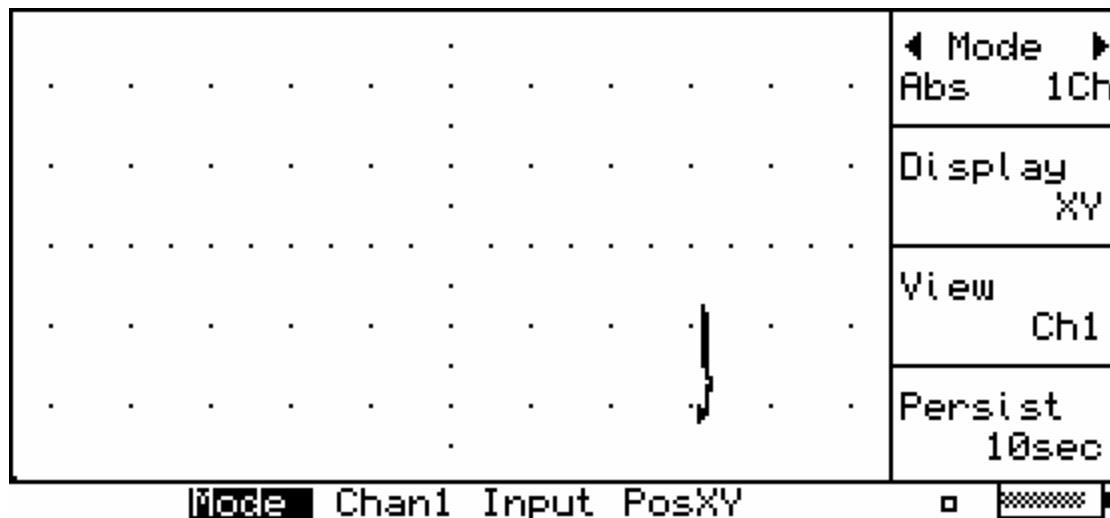


Figure B-140. MFEC indication stringer 4R at BS 720A rivet 7 aft side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-151</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 720a rivet 8 fwd

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

Dump	15 : 46	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	200 Hz
X-pos 1	1H	65	X-pos 2	2H	0
Y-pos 1	1V	-35	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone
Top	TA	-14	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	20	Outer	OA	Off
Start	SA	9.0°	End	EA	315.0°
Analogue 1 Out	A1	Off	Analogue 2 Out	A2	Off
Persist	PE	10sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.A			

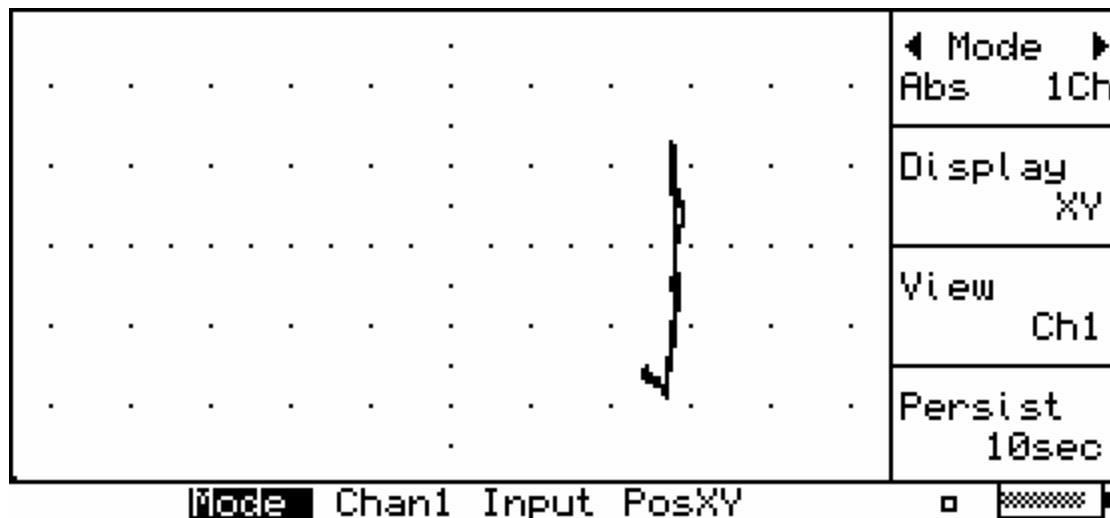


Figure B-141. MFEC indication stringer 4R at BS 720A rivet 8 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-152</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 720a rivet 8 aft

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	15 : 47	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	200 Hz
X-pos 1	1H	65	X-pos 2	2H	0
Y-pos 1	1V	-35	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone
Top	TA	-14	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	20	Outer	OA	Off
Start	SA	9.0°	End	EA	315.0°
Analogue 1 Out	A1	Off	Analogue 2 Out	A2	Off
Persist	PE	10sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.A			

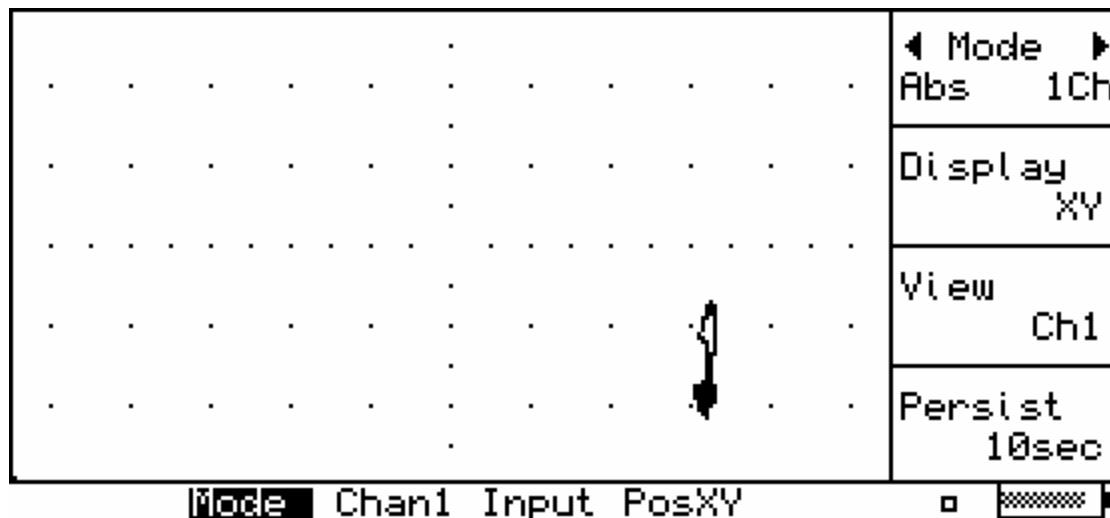


Figure B-142. MFEC indication stringer 4R at BS 720A rivet 8 aft side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-153</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 720a rivet 9

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	15 : 45	09	Nov	'02	
Probe	PR	Standard	Mode	MO	Abs 1Ch
Display	DI	XY	View	VW	Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	200 Hz
X-pos 1	1H	65	X-pos 2	2H	0
Y-pos 1	1V	-35	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone
Top	TA	-14	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	20	Outer	OA	Off
Start	SA	9.0°	End	EA	315.0°
Analogue 1 Out	A1	Off	Analogue 2 Out	A2	Off
Persist	PE	10sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.A			

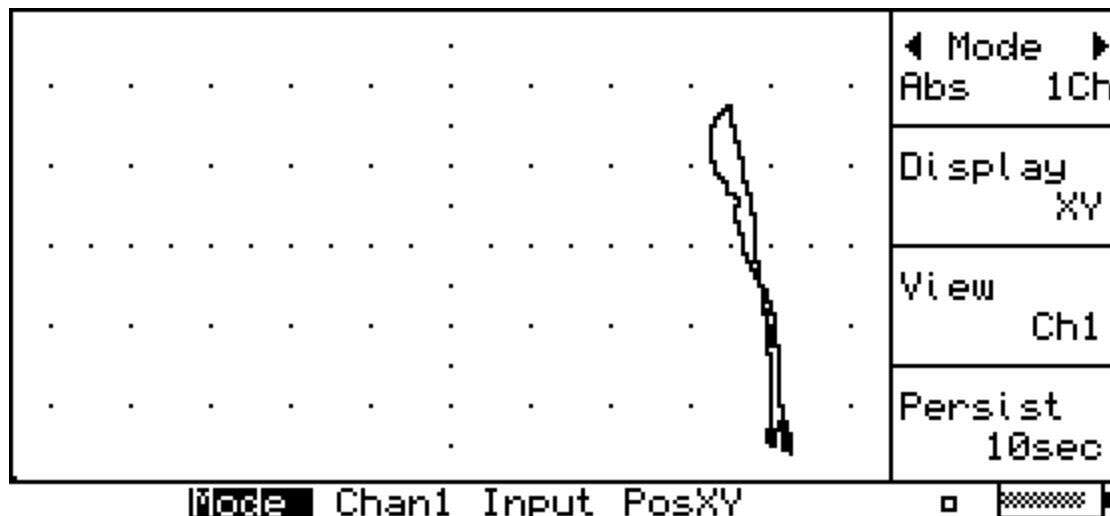


Figure B-143. MFEC indication stringer 4R at BS 720A rivet 9.

## ENGINEERING DEPARTMENT

SHEET	<b>B-154</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 720b rivet 1 fwd

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	15 : 41	09	Nov	'02	
Probe	PR	Standard	Mode	MO	Abs 1Ch
Display	DI	XY	View	VW	Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	200 Hz
X-pos 1	1H	65	X-pos 2	2H	0
Y-pos 1	1V	-35	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone
Top	TA	-14	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	20	Outer	OA	Off
Start	SA	9.0°	End	EA	315.0°
Analogue 1 Out	A1	Off	Analogue 2 Out	A2	Off
Persist	PE	10sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.A			

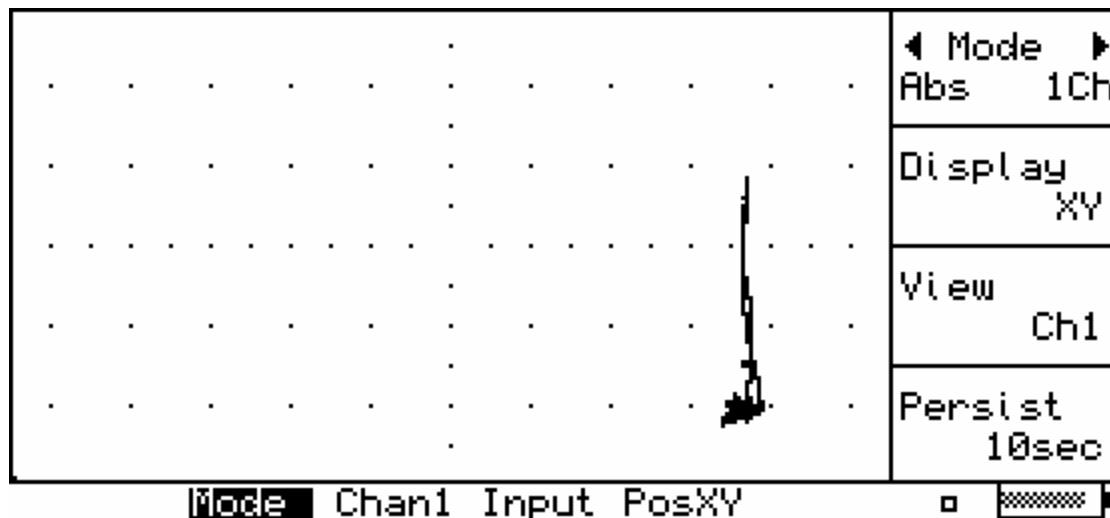


Figure B-144. MFEC indication stringer 4R at BS 720B rivet 1 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-155</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 720b rivet 4 fwd

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	15 : 40	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	200 Hz
X-pos 1	1H	65	X-pos 2	2H	0
Y-pos 1	1V	-35	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone
Top	TA	-14	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	20	Outer	OA	Off
Start	SA	9.0°	End	EA	315.0°
Analogue 1 Out	A1	Off	Analogue 2 Out	A2	Off
Persist	PE	10sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.A			

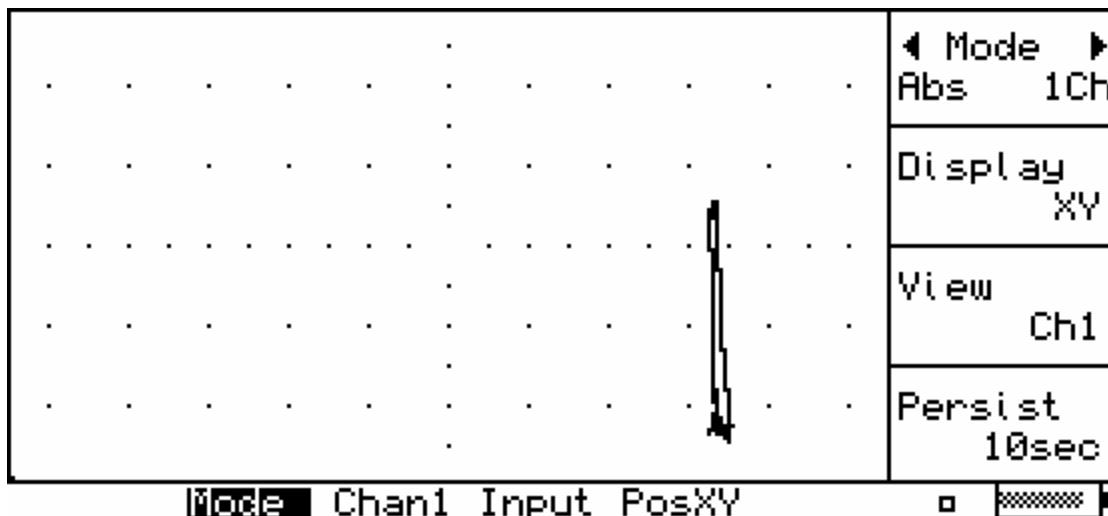


Figure B-145. MFEC indication stringer 4R at BS 720B rivet 4 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-156</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 720b rivet 4 aft

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	15 : 41	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	200 Hz
X-pos 1	1H	65	X-pos 2	2H	0
Y-pos 1	1V	-35	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone
Top	TA	-14	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	20	Outer	OA	Off
Start	SA	9.0°	End	EA	315.0°
Analogue 1 Out	A1	Off	Analogue 2 Out	A2	Off
Persist	PE	10sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.A			

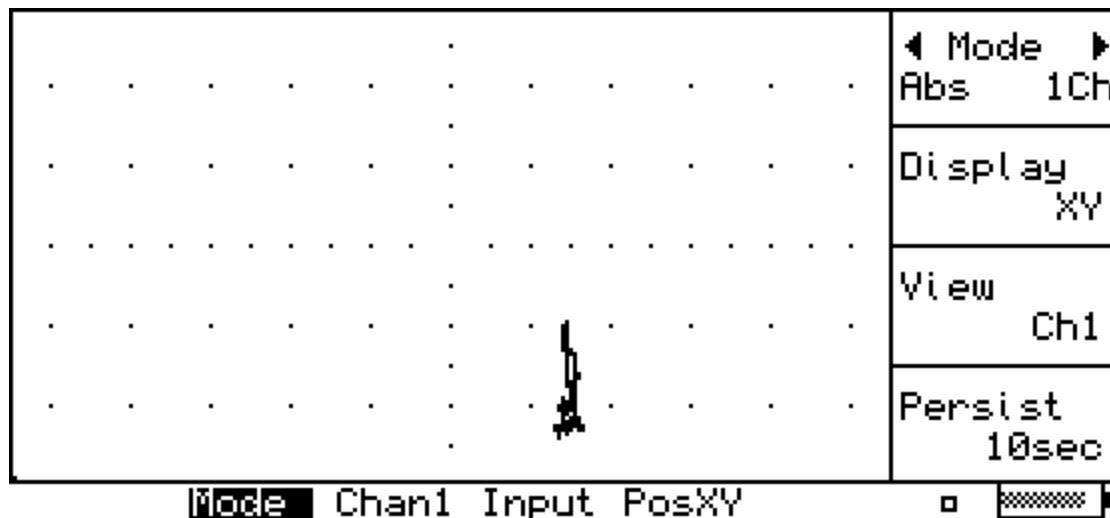


Figure B-146. MFEC indication stringer 4R at BS 720B rivet 4 aft side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-157</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 720b rivet 5 fwd

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

Dump 15 : 37 09 Nov '02

Probe	PR	Standard	Mode	MO	Abs	1Ch
Display	DI	XY	View	VW		Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz	
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB	
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°	
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB	
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB	
Hi-pass	HP	DC	Lo-pass	LP	200 Hz	
X-pos 1	1H	65	X-pos 2	2H	0	
Y-pos 1	1V	-35	Y-pos 2	2V	0	
Alarm Shape	AT	Off	Apply to	AA	Both	
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone	
Top	TA	-14	Left	LA	Off	
Right	RA	Off	Bottom	BA	Off	
Inner	IA	20	Outer	OA	Off	
Start	SA	9.0°	End	EA	315.0°	
Analogue 1 Out	A1	Off	Analogue 2 Out	A2		Off
Persist	PE	10sec	Sweep	SD	1sec	
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V	
Inp. Gain	IP	0dB	Bal. Load	LO	120uH	
Graticule	GR	Rect.A				

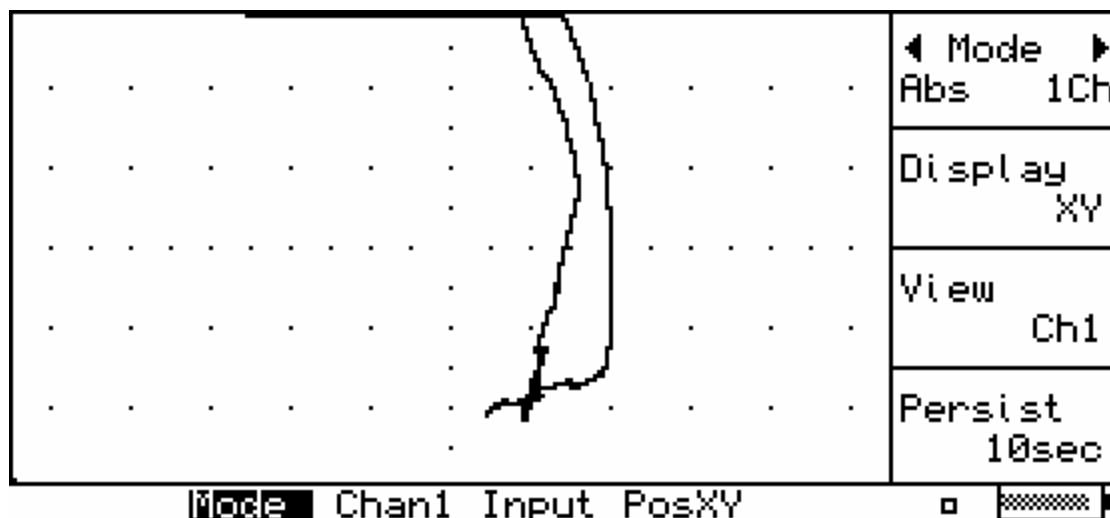


Figure B-147. MFEC indication stringer 4R at BS 720B rivet 5 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-158</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS:

mfec str 4r sta 720b rivet 5 aft

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

Dump	15 : 39	09	Nov	'02	
Probe	PR	Standard	Mode	MO	Abs 1Ch
Display	DI	XY	View	VW	Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	200 Hz
X-pos 1	1H	65	X-pos 2	2H	0
Y-pos 1	1V	-35	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone
Top	TA	-14	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	20	Outer	OA	Off
Start	SA	9.0°	End	EA	315.0°
Analogue 1 Out	A1	Off	Analogue 2 Out	A2	Off
Persist	PE	10sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.A			

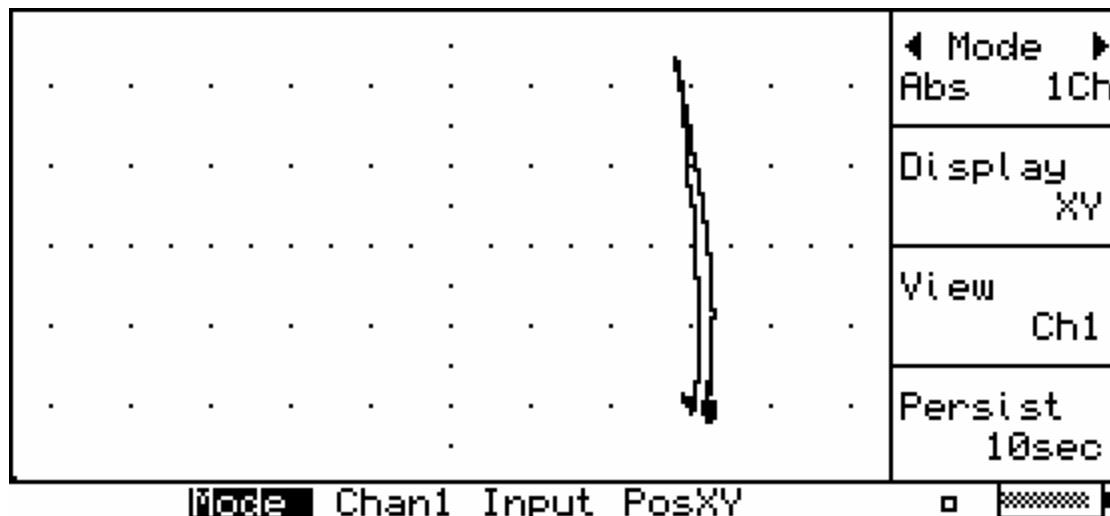


Figure B-148. MFEC indication stringer 4R at BS 720B rivet 5 aft side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-159</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 720b rivet 6 fwd

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

Dump 15 : 36 09 Nov '02

Probe	PR	Standard	Mode	MO	Abs	1Ch
Display	DI	XY	View	VW	Ch1	
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz	
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB	
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°	
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB	
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB	
Hi-pass	HP	DC	Lo-pass	LP	200 Hz	
X-pos 1	1H	65	X-pos 2	2H	0	
Y-pos 1	1V	-35	Y-pos 2	2V	0	
Alarm Shape	AT	Off	Apply to	AA	Both	
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone	
Top	TA	-14	Left	LA	Off	
Right	RA	Off	Bottom	BA	Off	
Inner	IA	20	Outer	OA	Off	
Start	SA	9.0°	End	EA	315.0°	
Analogue 1 Out	A1	Off	Analogue 2 Out	A2	Off	
Persist	PE	10sec	Sweep	SD	1sec	
Zoom	ZM	Normal	Drive	DR	+10dB	6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH	
Graticule	GR	Rect.A				

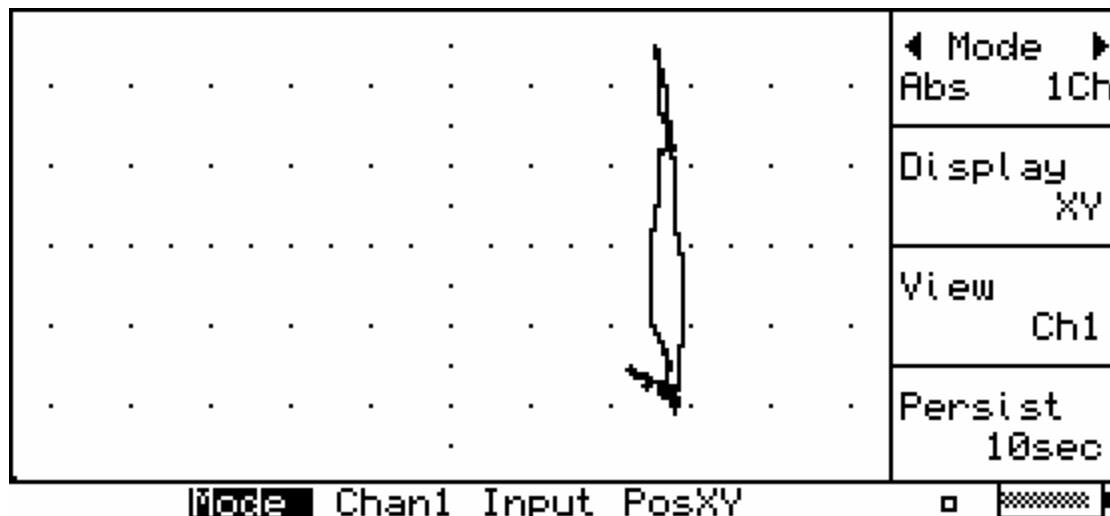


Figure B-149. MFEC indication stringer 4R at BS 720B rivet 6 fwd side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-160</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 720b rivet 6 aft

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	15 : 35	09	Nov	'02	
Probe	PR	Standard	Mode	MO	Abs 1Ch
Display	DI	XY	View	VW	Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	200 Hz
X-pos 1	1H	65	X-pos 2	2H	0
Y-pos 1	1V	-35	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone
Top	TA	-14	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	20	Outer	OA	Off
Start	SA	9.0°	End	EA	315.0°
Analogue 1 Out	A1	Off	Analogue 2 Out	A2	Off
Persist	PE	10sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.A			

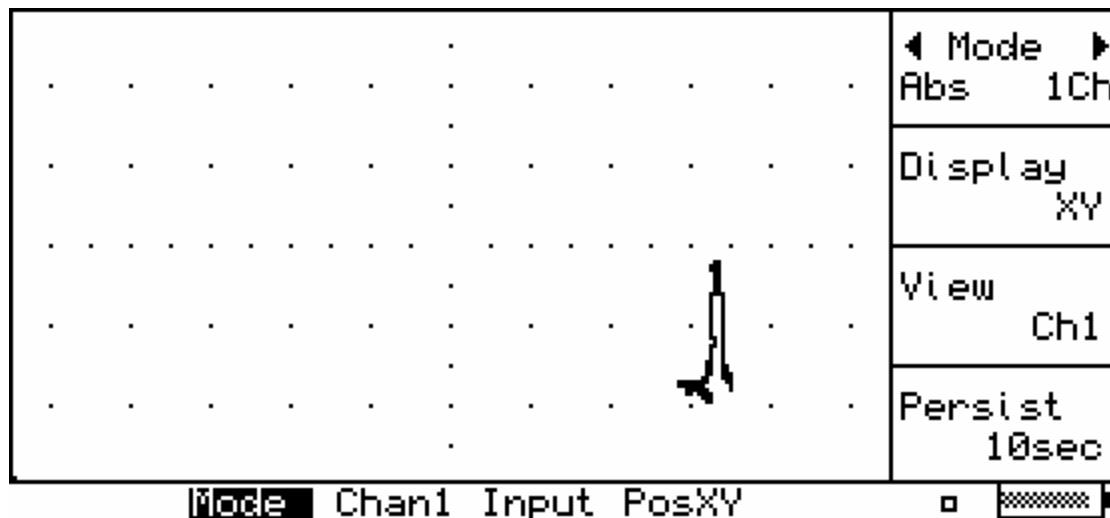


Figure B-150. MFEC indication stringer 4R at BS 720B rivet 6 aft side.

## ENGINEERING DEPARTMENT

SHEET	<b>B-161</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 720b rivet 7

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	15 : 34	09	Nov	'02	
Probe	PR	Standard	Mode	MO	Abs 1Ch
Display	DI	XY	View	VW	Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	200 Hz
X-pos 1	1H	65	X-pos 2	2H	0
Y-pos 1	1V	-35	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone
Top	TA	-14	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	20	Outer	OA	Off
Start	SA	9.0°	End	EA	315.0°
Analogue 1 Out	A1	Off	Analogue 2 Out	A2	Off
Persist	PE	10sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.A			

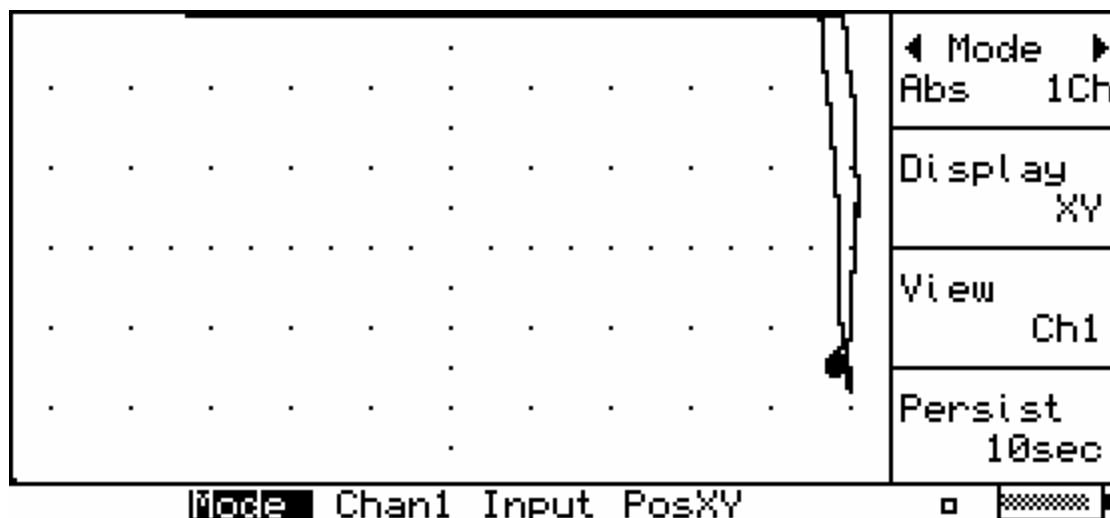


Figure B-151. MFEC indication stringer 4R at BS 720B rivet 7.

## ENGINEERING DEPARTMENT

SHEET	<b>B-162</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 720b rivet 8

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	15 : 32	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	200 Hz
X-pos 1	1H	65	X-pos 2	2H	0
Y-pos 1	1V	-35	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone
Top	TA	-14	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	20	Outer	OA	Off
Start	SA	9.0°	End	EA	315.0°
Analogue 1 Out	A1	Off	Analogue 2 Out	A2	Off
Persist	PE	10sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.A			

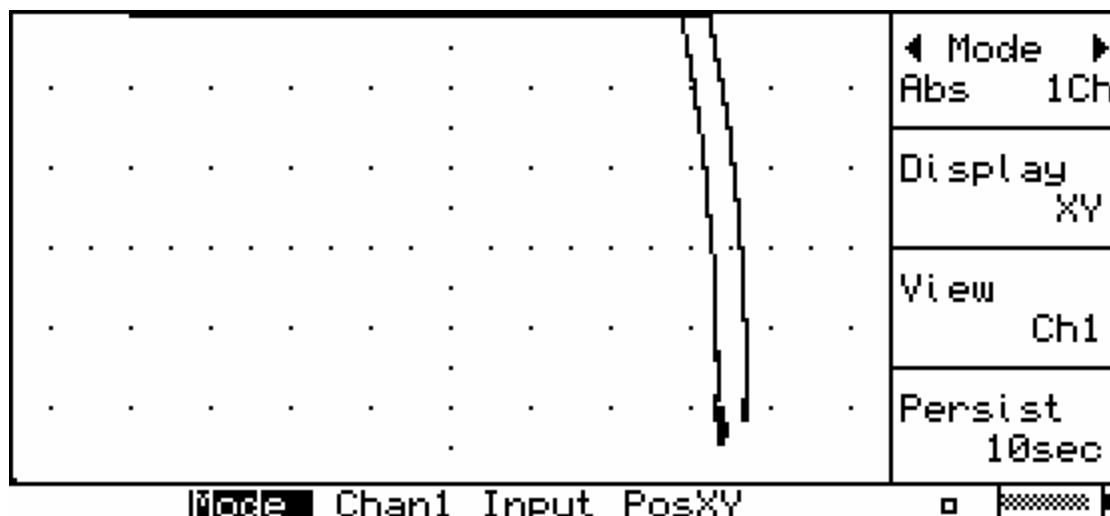


Figure B-152. MFEC indication stringer 4R at BS 720B rivet 8.

## ENGINEERING DEPARTMENT

SHEET	<b>B-163</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 720b rivet 9

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	15 : 31	09	Nov	'02	
Probe	PR	Standard	Mode	MO	Abs 1Ch
Display	DI	XY	View	VW	Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	200 Hz
X-pos 1	1H	65	X-pos 2	2H	0
Y-pos 1	1V	-35	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone
Top	TA	-14	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	20	Outer	OA	Off
Start	SA	9.0°	End	EA	315.0°
Analogue 1 Out	A1	Off	Analogue 2 Out	A2	Off
Persist	PE	10sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.A			

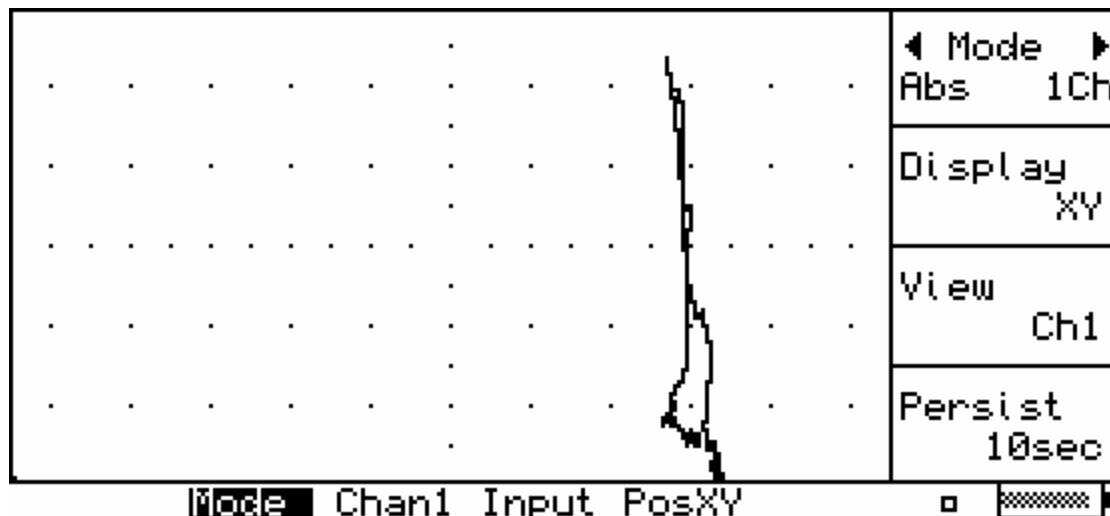


Figure B-153. MFEC indication stringer 4R at BS 720B rivet 9.

## ENGINEERING DEPARTMENT

SHEET	<b>B-164</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 720b rivet 10

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	15 : 29	09	Nov	'02	
Probe	PR	Standard	Mode	MO	Abs 1Ch
Display	DI	XY	View	VW	Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	200 Hz
X-pos 1	1H	65	X-pos 2	2H	0
Y-pos 1	1V	-35	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone
Top	TA	-14	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	20	Outer	OA	Off
Start	SA	9.0°	End	EA	315.0°
Analogue 1 Out	A1	Off	Analogue 2 Out	A2	Off
Persist	PE	10sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.A			

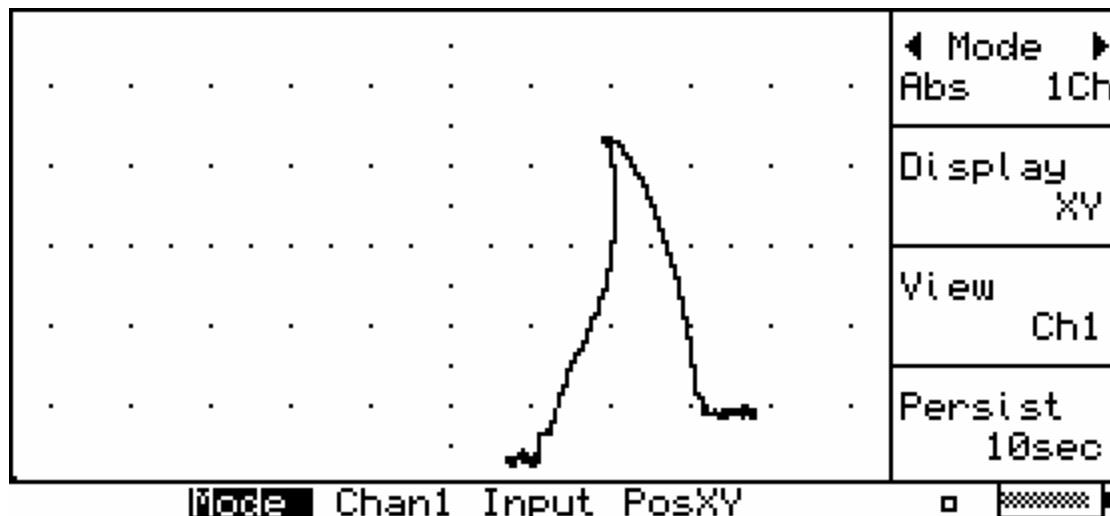


Figure B-154. MFEC indication stringer 4R at BS 720B rivet 10.

## ENGINEERING DEPARTMENT

SHEET	<b>B-165</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 720b rivet 11

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	15 : 28	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	200 Hz
X-pos 1	1H	65	X-pos 2	2H	0
Y-pos 1	1V	-35	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone
Top	TA	-14	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	20	Outer	OA	Off
Start	SA	9.0°	End	EA	315.0°
Analogue 1 Out	A1	Off	Analogue 2 Out	A2	Off
Persist	PE	10sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.A			

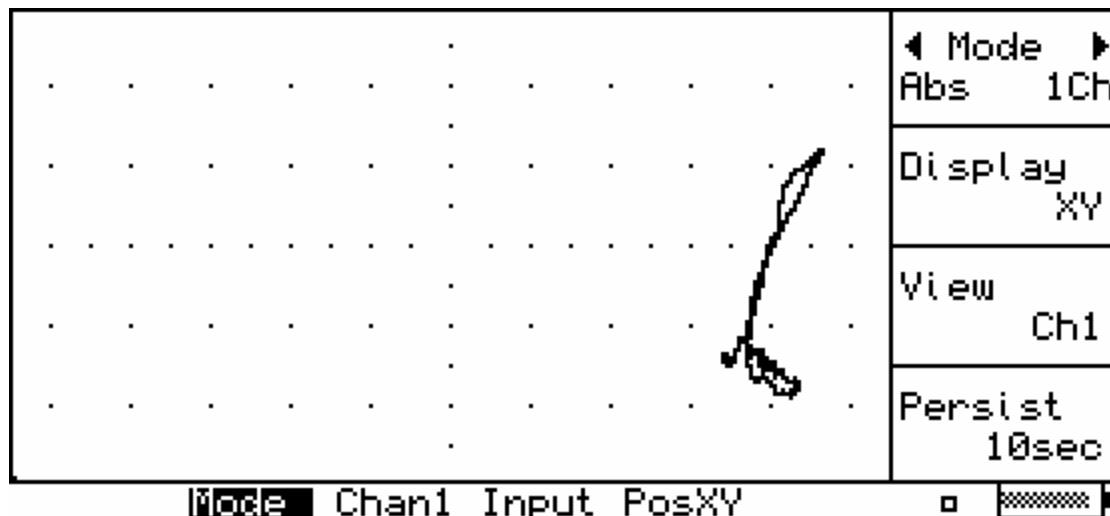


Figure B-155. MFEC indication stringer 4R at BS 720B rivet 11.

## ENGINEERING DEPARTMENT

SHEET	<b>B-166</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 720b rivet 12

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	15 : 25	09	Nov	'02	
Probe	PR	Standard	Mode	MO	Abs 1Ch
Display	DI	XY	View	VW	Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	200 Hz
X-pos 1	1H	65	X-pos 2	2H	0
Y-pos 1	1V	-35	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone
Top	TA	-14	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	20	Outer	OA	Off
Start	SA	9.0°	End	EA	315.0°
Analogue 1 Out	A1	Off	Analogue 2 Out	A2	Off
Persist	PE	10sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.A			

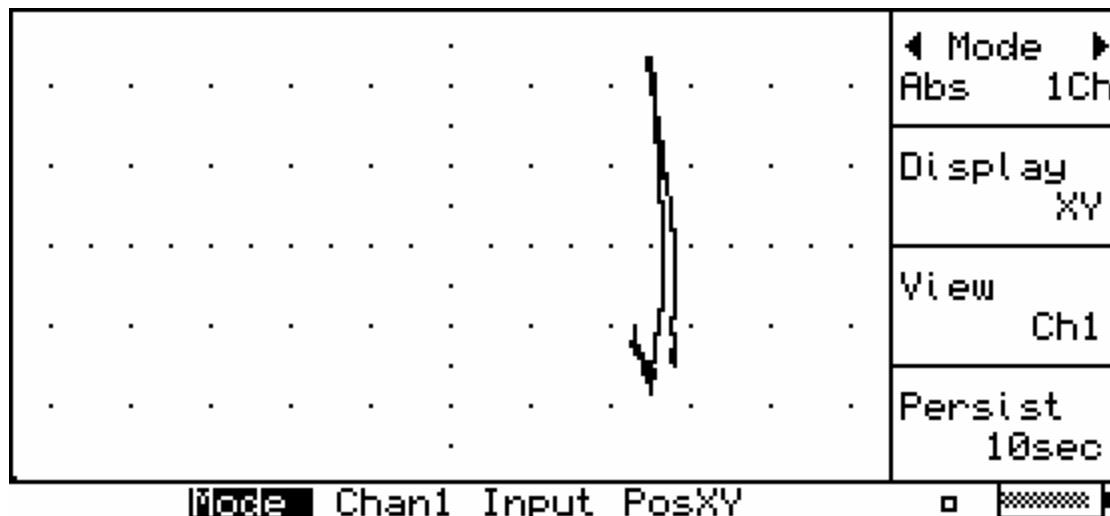


Figure B-156. MFEC indication stringer 4R at BS 720B rivet 12.

## ENGINEERING DEPARTMENT

SHEET	<b>B-167</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 720b rivet 13

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump 15 : 24 09 Nov '02

Probe	PR	Standard	Mode	MO	Abs	1Ch
Display	DI	XY	View	VW		Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz	
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB	
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°	
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB	
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB	
Hi-pass	HP	DC	Lo-pass	LP	200 Hz	
X-pos 1	1H	65	X-pos 2	2H	0	
Y-pos 1	1V	-35	Y-pos 2	2V	0	
Alarm Shape	AT	Off	Apply to	AA	Both	
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone	
Top	TA	-14	Left	LA	Off	
Right	RA	Off	Bottom	BA	Off	
Inner	IA	20	Outer	OA	Off	
Start	SA	9.0°	End	EA	315.0°	
Analogue 1 Out	A1	Off	Analogue 2 Out	A2		Off
Persist	PE	10sec	Sweep	SD	1sec	
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V	
Inp. Gain	IP	0dB	Bal. Load	LO	120uH	
Graticule	GR	Rect.A				

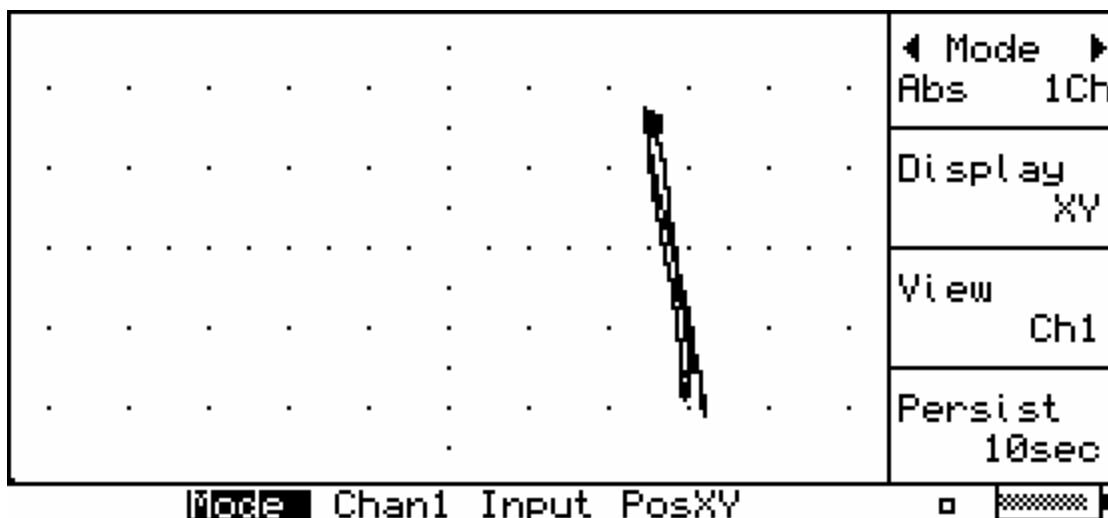


Figure B-157. MFEC indication stringer 4R at BS 720B rivet 13.

## ENGINEERING DEPARTMENT

SHEET	<b>B-168</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE			12/17/2002

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 720b rivet 14

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	15 : 23	09	Nov	'02	
Probe	PR	Standard	Mode	MO	Abs 1Ch
Display	DI	XY	View	VW	Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	200 Hz
X-pos 1	1H	65	X-pos 2	2H	0
Y-pos 1	1V	-35	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone
Top	TA	-14	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	20	Outer	OA	Off
Start	SA	9.0°	End	EA	315.0°
Analogue 1 Out	A1	Off	Analogue 2 Out	A2	Off
Persist	PE	10sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.A			

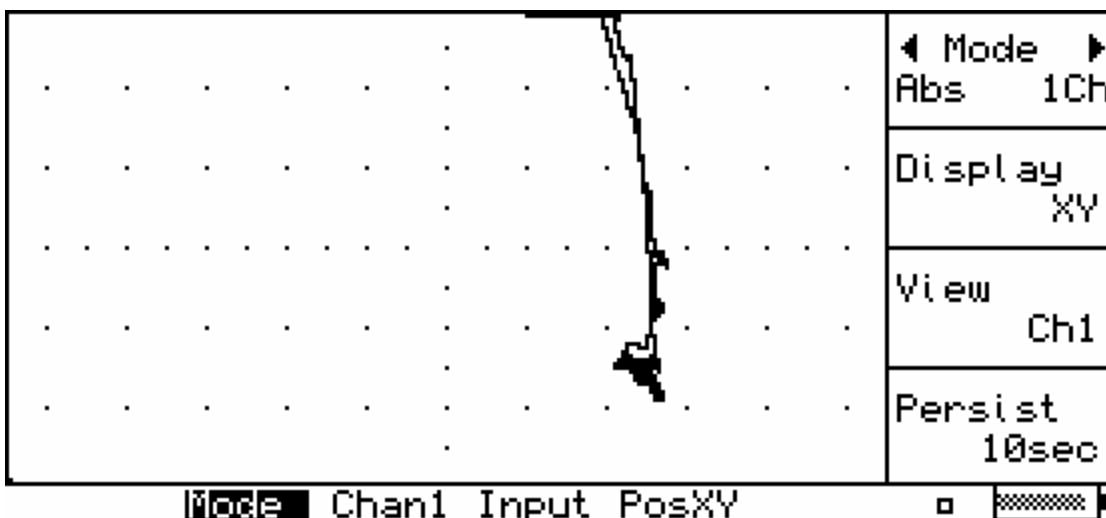


Figure B-158. MFEC indication stringer 4R at BS 720B rivet 14.

## ENGINEERING DEPARTMENT

SHEET	<b>B-169</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 720c rivet 6

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

Dump 15 : 22 09 Nov '02

Probe	PR	Standard	Mode	MO	Abs	1Ch
Display	DI	XY	View	VW	Ch1	
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz	
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB	
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°	
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB	
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB	
Hi-pass	HP	DC	Lo-pass	LP	200 Hz	
X-pos 1	1H	65	X-pos 2	2H	0	
Y-pos 1	1V	-35	Y-pos 2	2V	0	
Alarm Shape	AT	Off	Apply to	AA	Both	
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone	
Top	TA	-14	Left	LA	Off	
Right	RA	Off	Bottom	BA	Off	
Inner	IA	20	Outer	OA	Off	
Start	SA	9.0°	End	EA	315.0°	
Analogue 1 Out	A1	Off	Analogue 2 Out	A2	Off	
Persist	PE	10sec	Sweep	SD	1sec	
Zoom	ZM	Normal	Drive	DR	+10dB	6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH	
Graticule	GR	Rect.A				

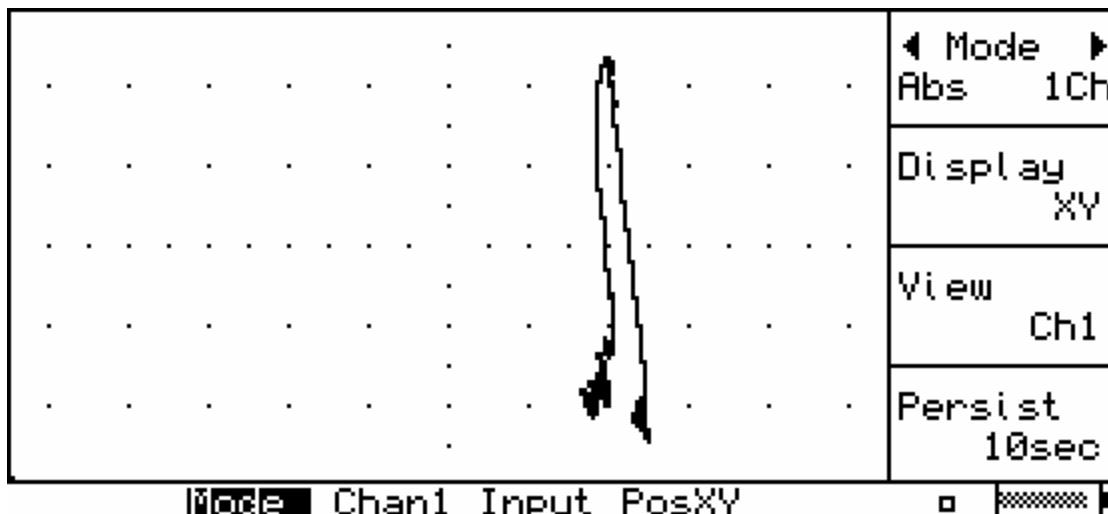


Figure B-159. MFEC indication stringer 4R at BS 720C rivet 6.

## ENGINEERING DEPARTMENT

SHEET	<b>B-170</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 720c rivet 7

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	15 : 20	09	Nov	'02	
Probe	PR	Standard	Mode	MO	Abs 1Ch
Display	DI	XY	View	VW	Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	200 Hz
X-pos 1	1H	65	X-pos 2	2H	0
Y-pos 1	1V	-35	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone
Top	TA	-14	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	20	Outer	OA	Off
Start	SA	9.0°	End	EA	315.0°
Analogue 1 Out	A1	Off	Analogue 2 Out	A2	Off
Persist	PE	10sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.A			

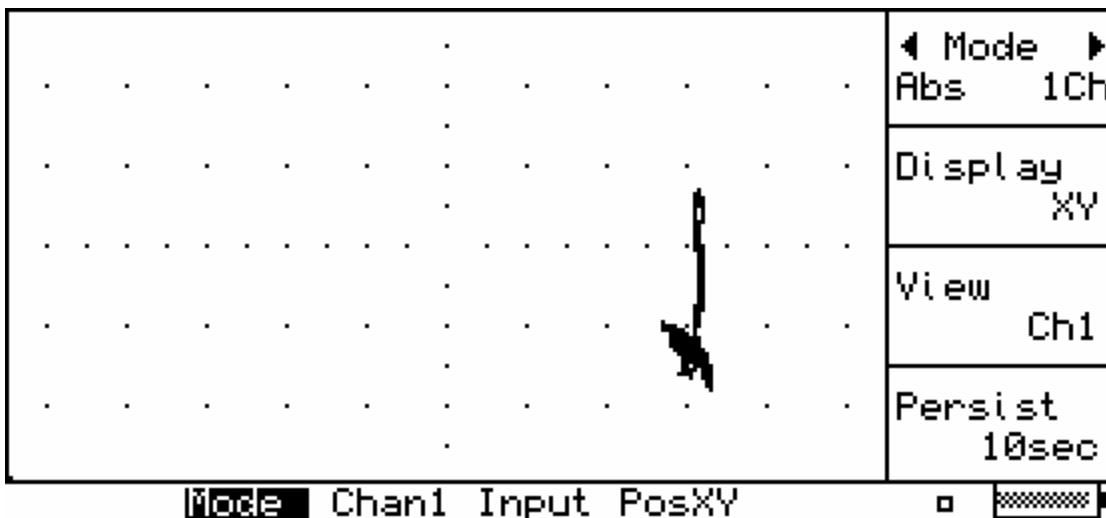


Figure B-160. MFEC indication stringer 4R at BS 720C rivet 7.

## ENGINEERING DEPARTMENT

SHEET	<b>B-171</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 720c rivet 8

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

Dump 15 : 19 09 Nov '02

Probe	PR	Standard	Mode	MO	Abs	1Ch
Display	DI	XY	View	VW		Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz	
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB	
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°	
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB	
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB	
Hi-pass	HP	DC	Lo-pass	LP	200 Hz	
X-pos 1	1H	65	X-pos 2	2H	0	
Y-pos 1	1V	-35	Y-pos 2	2V	0	
Alarm Shape	AT	Off	Apply to	AA	Both	
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone	
Top	TA	-14	Left	LA	Off	
Right	RA	Off	Bottom	BA	Off	
Inner	IA	20	Outer	OA	Off	
Start	SA	9.0°	End	EA	315.0°	
Analogue 1 Out	A1	Off	Analogue 2 Out	A2		Off
Persist	PE	10sec	Sweep	SD	1sec	
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V	
Inp. Gain	IP	0dB	Bal. Load	LO	120uH	
Graticule	GR	Rect.A				

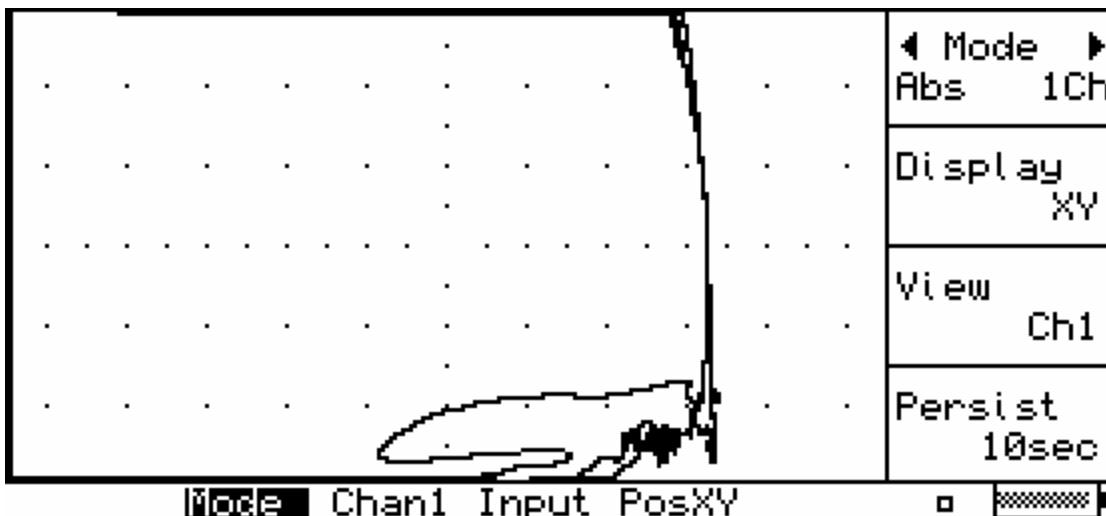


Figure B-161. MFEC indication stringer 4R at BS 720C rivet 8.

## ENGINEERING DEPARTMENT

SHEET	<b>B-172</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 720c rivet 15

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	15 : 18	09	Nov	'02	
Probe	PR	Standard	Mode	MO	Abs 1Ch
Display	DI	XY	View	VW	Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	200 Hz
X-pos 1	1H	65	X-pos 2	2H	0
Y-pos 1	1V	-35	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone
Top	TA	-14	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	20	Outer	OA	Off
Start	SA	9.0°	End	EA	315.0°
Analogue 1 Out	A1	Off	Analogue 2 Out	A2	Off
Persist	PE	10sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.A			

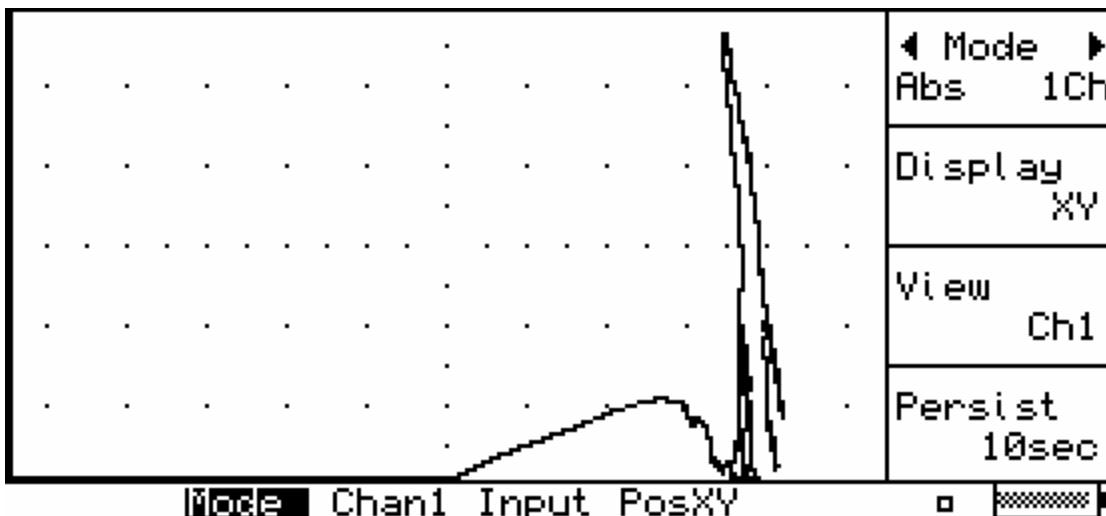


Figure B-162. MFEC indication stringer 4R at BS 720C rivet 15.

## ENGINEERING DEPARTMENT

SHEET	<b>B-173</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 720d rivet 6

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	15 : 16	09	Nov	'02	
Probe	PR	Standard	Mode	MO	Abs 1Ch
Display	DI	XY	View	VW	Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	200 Hz
X-pos 1	1H	65	X-pos 2	2H	0
Y-pos 1	1V	-35	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone
Top	TA	-14	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	20	Outer	OA	Off
Start	SA	9.0°	End	EA	315.0°
Analogue 1 Out	A1	Off	Analogue 2 Out	A2	Off
Persist	PE	10sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.A			

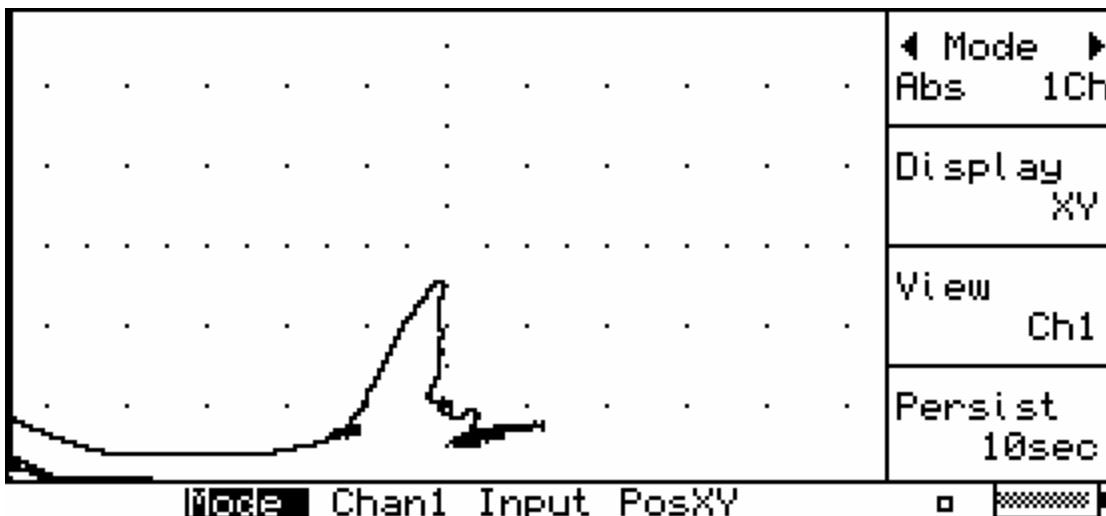


Figure B-163. MFEC indication stringer 4R at BS 720D rivet 6.

## ENGINEERING DEPARTMENT

SHEET	<b>B-174</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE		12/17/2002	

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 720d rivet 7

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

Dump	15 : 15	09	Nov	'02	
Probe Display	PR DI	Standard XY	Mode View	MO VW	Abs Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	200 Hz
X-pos 1	1H	65	X-pos 2	2H	0
Y-pos 1	1V	-35	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone
Top	TA	-14	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	20	Outer	OA	Off
Start	SA	9.0°	End	EA	315.0°
Analogue 1 Out	A1	Off	Analogue 2 Out	A2	Off
Persist	PE	10sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.A			

No	Typ	Trace name	Date	Time	▲ Line ▼
16	XY	420+4	08Nov02	13:59	21
17	XY	420+5	08Nov02	14:11	
18	XY	420+6	08Nov02	14:13	
19	XY	420+10	08Nov02	14:17	
20	XY	M 720E+8 4R	08Nov02	17:56	
21	XY	+7	08Nov02	17:59	Direct Printing
22	XY	+6	08Nov02	18:03	
23	XY	720D+15	08Nov02	18:12	
24	XY	720D+8 4R	08Nov02	18:18	Function Recall
25	XY	+7	08Nov02	18:20	

Select Function, then EXECute.



Figure B-164. MFEC indication stringer 4R at BS 720D rivet 7.

## ENGINEERING DEPARTMENT

SHEET	<b>B-175</b>	NO.	<b>4-086382-20</b>
TOTAL	<b>B-174</b>		
ISSUE DATE	12/17/2002		

OPERATOR:

INSTRUMENT SN:

CODE:

PROBE SN:

LOCATION:

CAL BLOCK SN:

JOB NAME:

TEST COMMENTS: mfec str 4r sta 720d rivet 8

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Dump	15 : 12	09	Nov	'02	
Probe	PR	Standard	Mode	MO	Abs 1Ch
Display	DI	XY	View	VW	Ch1
Ch1 Freq	1F	30kHz	Ch2 Freq	2F	100kHz
Ch1 Gain	1G	65.0dB	Ch2 Gain	2G	20.0dB
Ch1 Phase	1P	105.0°	Ch2 Phase	2P	0.0°
Ch1 X:Y	1R	X-15.0dB	Ch2 X:Y	2R	0.0dB
Sum Phase	SP	0.0°	Sum Gain	SG	0.0dB
Hi-pass	HP	DC	Lo-pass	LP	200 Hz
X-pos 1	1H	65	X-pos 2	2H	0
Y-pos 1	1V	-35	Y-pos 2	2V	0
Alarm Shape	AT	Off	Apply to	AA	Both
Alarm Stretch	AS	Off	Alarm action	AF Run	Tone
Top	TA	-14	Left	LA	Off
Right	RA	Off	Bottom	BA	Off
Inner	IA	20	Outer	OA	Off
Start	SA	9.0°	End	EA	315.0°
Analogue 1 Out	A1	Off	Analogue 2 Out	A2	Off
Persist	PE	10sec	Sweep	SD	1sec
Zoom	ZM	Normal	Drive	DR	+10dB 6.3V
Inp. Gain	IP	0dB	Bal. Load	LO	120uH
Graticule	GR	Rect.A			

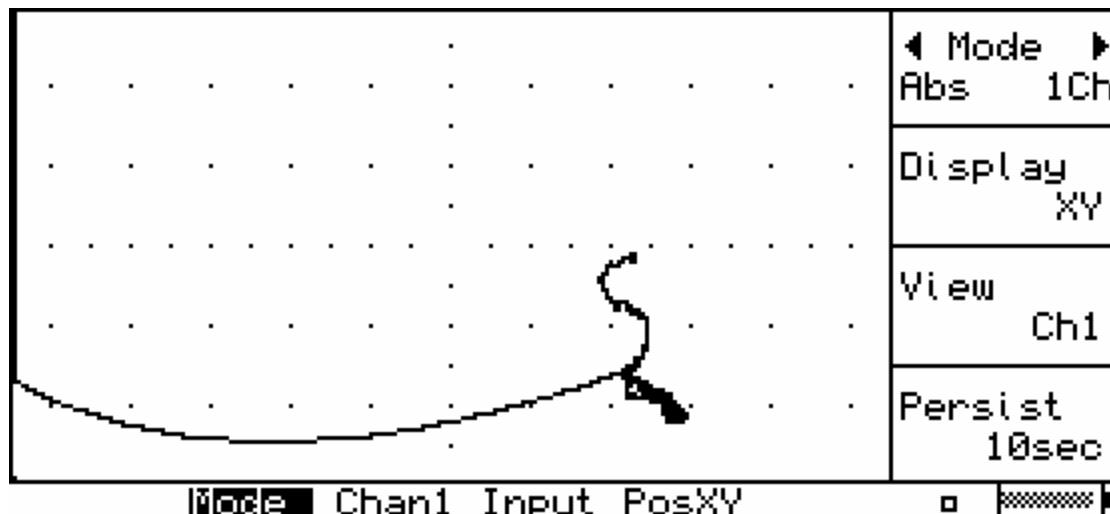


Figure B-165. MFEC indication stringer 4R at BS 720D rivet 8.

## ENGINEERING DEPARTMENT

SHEET	C-1	NO.	4-086382-20
TOTAL	C-11		
ISSUE DATE		12/17/2002	

## APPENDIX C

## PHOTOGRAPHS OF INDICATION LOCATIONS NOTED DURING INTERNAL DVI AND INTERNAL MFEC INSPECTIONS

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- FIGURE C-1 Photograph of indication locations found during DVI and MFEC inspections. Stringer 4L, BS 400 to BS 420..... C-3
- FIGURE C-2 Photograph of indication locations found during DVI and MFEC inspections. Stringer 4L, BS 420 to BS 440..... C-3
- FIGURE C-3 Photograph of indication locations found during DVI and MFEC inspections. Stringer 4R, BS 440 to BS 460..... C-4
- FIGURE C-4 Photograph of indication locations found during DVI and MFEC inspections. Stringer 4R, BS 500 to BS 520..... C-4
- FIGURE C-5 Photograph of indication locations found during DVI and MFEC inspections. Stringer 4R, BS 520 to BS 540..... C-5
- FIGURE C-6 Photograph of indication locations found during DVI and MFEC inspections. Stringer 4R, BS 540 to BS 560..... C-5
- FIGURE C-7 Photograph of indication locations found during DVI and MFEC inspections. Stringer 4R, BS 560 to BS 580..... C-6
- FIGURE C-8 Photograph of indication locations found during DVI and MFEC inspections. Stringer 4R, BS 580 to BS 600..... C-6
- FIGURE C-9 Photograph of indication locations found during DVI and MFEC inspections. Stringer 4R, BS 600 to BS 620..... C-7

ENGINEERING DEPARTMENT

SHEET	C-2	NO.	4-086382-20
TOTAL	C-11		
ISSUE DATE		12/17/2002	

- FIGURE C-10 Photograph of indication locations found during DVI and MFEC inspections.  
Stringer 4R, BS 620 to BS 640 ..... C-7
- FIGURE C-11 Photograph of indication locations found during DVI and MFEC inspections.  
Stringer 4R, BS 660 to BS 680 ..... C-8
- FIGURE C-12 Photograph of indication locations found during DVI and MFEC inspections.  
Stringer 4R, BS 700 to BS 720.. ..... C-8
- FIGURE C-13 Photograph of indication locations found during DVI and MFEC inspections.  
Stringer 4R, BS 720 to BS 720A..... C-9
- FIGURE C-14 Photograph of indication locations found during DVI and MFEC inspections.  
Stringer 4R, BS 720A to BS 720B..... C-9
- FIGURE C-15 Photograph of indication locations found during DVI and MFEC inspections.  
Stringer 4R, BS 720B to BS 720C..... C-10
- FIGURE C-16 Photograph of indication locations found during DVI and MFEC inspections.  
Stringer 4R, BS 720C to BS 720D..... C-10
- FIGURE C-17 Photograph of indication locations found during DVI and MFEC inspections.  
Stringer 4R, BS 720D to BS 720E..... C-11

ENGINEERING DEPARTMENT

SHEET	C-3	NO.	4-086382-20
TOTAL	C-11		
ISSUE DATE			12/17/2002



Figure C-1. Photograph of indication locations found during DVI and MFEC inspections. Stringer 4L, BS 400 to BS 420.

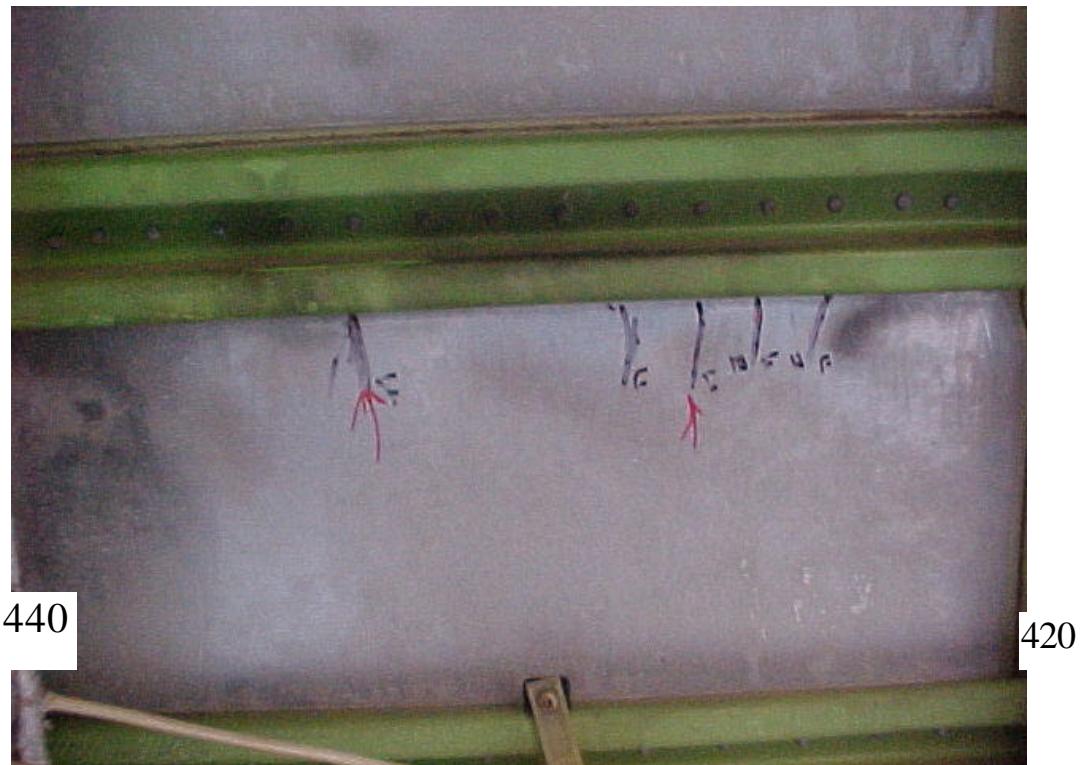


Figure C-2. Photograph of indication locations found during DVI and MFEC inspections. Stringer 4L, BS 420 to BS 440.

ENGINEERING DEPARTMENT

SHEET	C-4	NO.	4-086382-20
TOTAL	C-11		
ISSUE DATE			12/17/2002



Figure C-3. Photograph of indication locations found during DVI and MFEC inspections. Stringer 4R,  
BS 440 to BS 460.

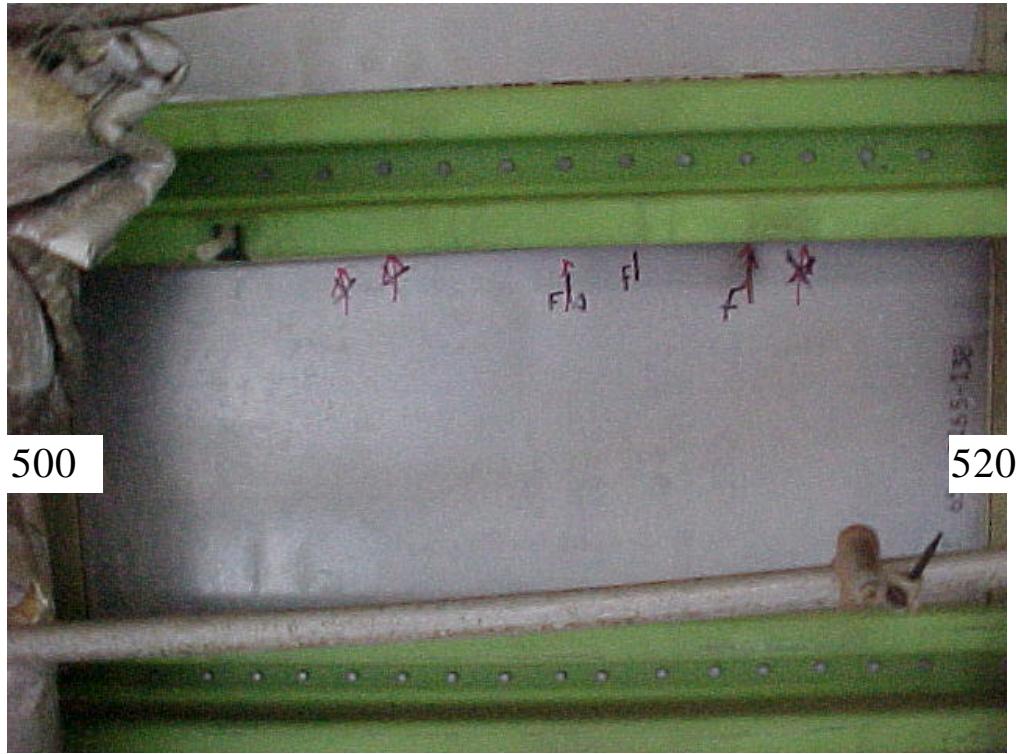


Figure C-4. Photograph of indication locations found during DVI and MFEC inspections. Stringer 4R,  
BS 500 to BS 520.

ENGINEERING DEPARTMENT

SHEET	C-5	NO.	4-086382-20
TOTAL	C-11		
ISSUE DATE			12/17/2002

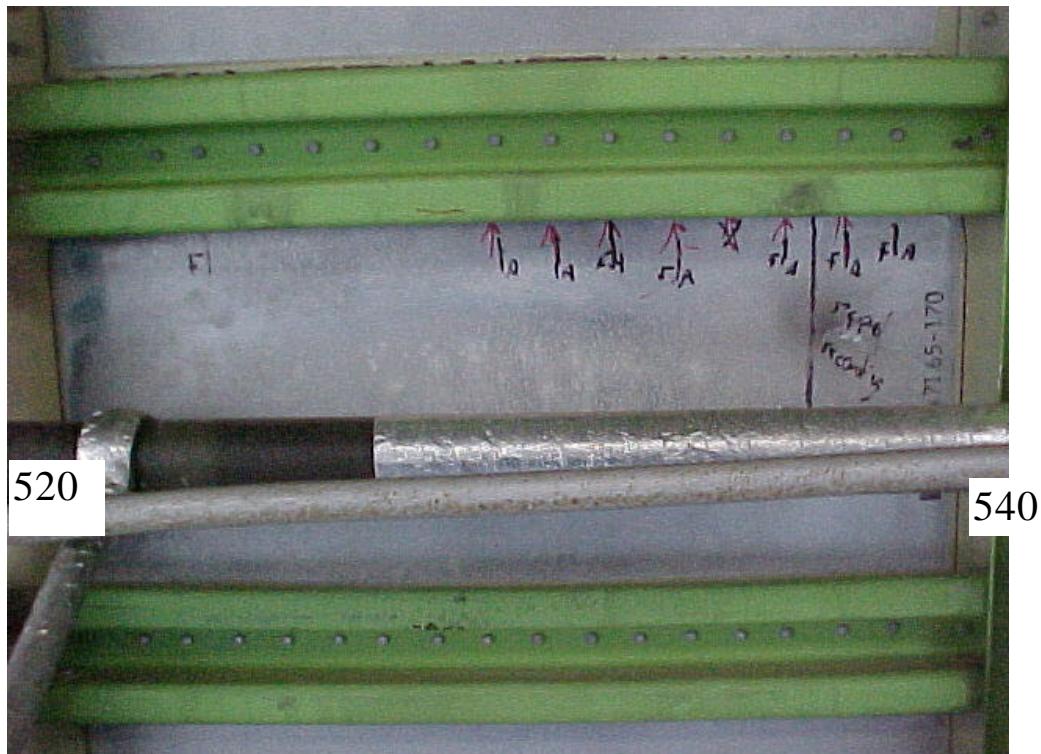


Figure C-5. Photograph of indication locations found during DVI and MFEC inspections. Stringer 4R, BS 520 to BS 540.

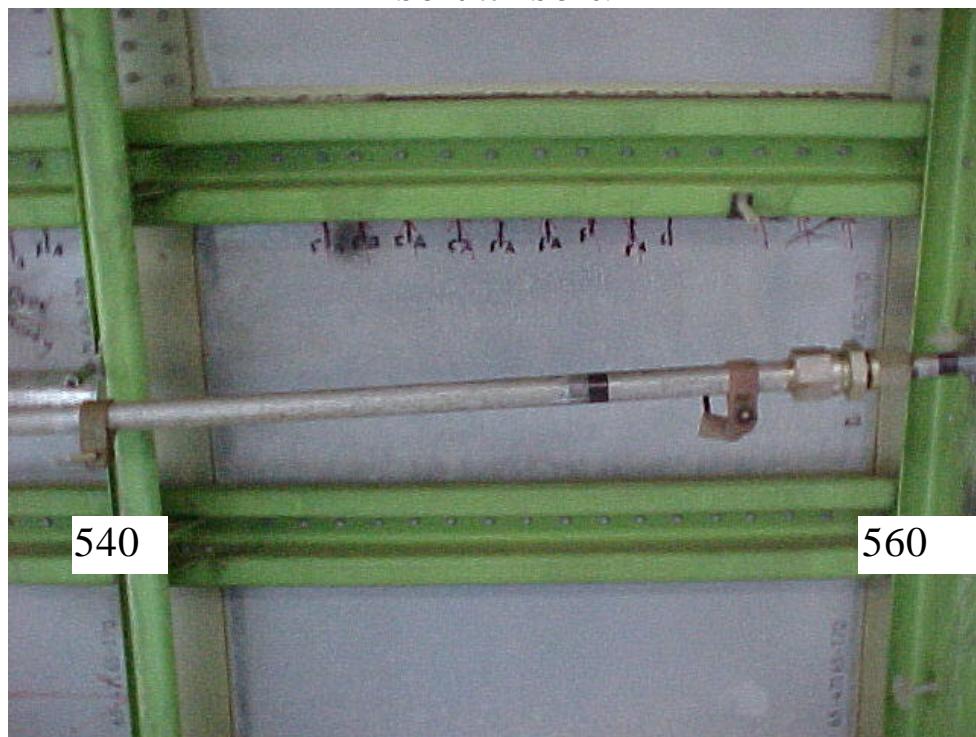


Figure C-6. Photograph of indication locations found during DVI and MFEC inspections. Stringer 4R, BS 540 to BS 560.

ENGINEERING DEPARTMENT

SHEET	C-6	NO.	4-086382-20
TOTAL	C-11		
ISSUE DATE			12/17/2002



Figure C-7. Photograph of indication locations found during DVI and MFEC inspections. Stringer 4R, BS 560 to BS 580.



Figure C-8. Photograph of indication locations found during DVI and MFEC inspections. Stringer 4R, BS 580 to BS 600.

ENGINEERING DEPARTMENT

SHEET	C-7	NO.	4-086382-20
TOTAL	C-11		
ISSUE DATE			12/17/2002



Figure C-9. Photograph of indication locations found during DVI and MFEC inspections. Stringer 4R, BS 600 to BS 620.



Figure C-10. Photograph of indication locations found during DVI and MFEC inspections. Stringer 4R, BS 620 to BS 640.

ENGINEERING DEPARTMENT

SHEET	C-8	NO.	4-086382-20
TOTAL	C-11		
ISSUE DATE	12/17/2002		

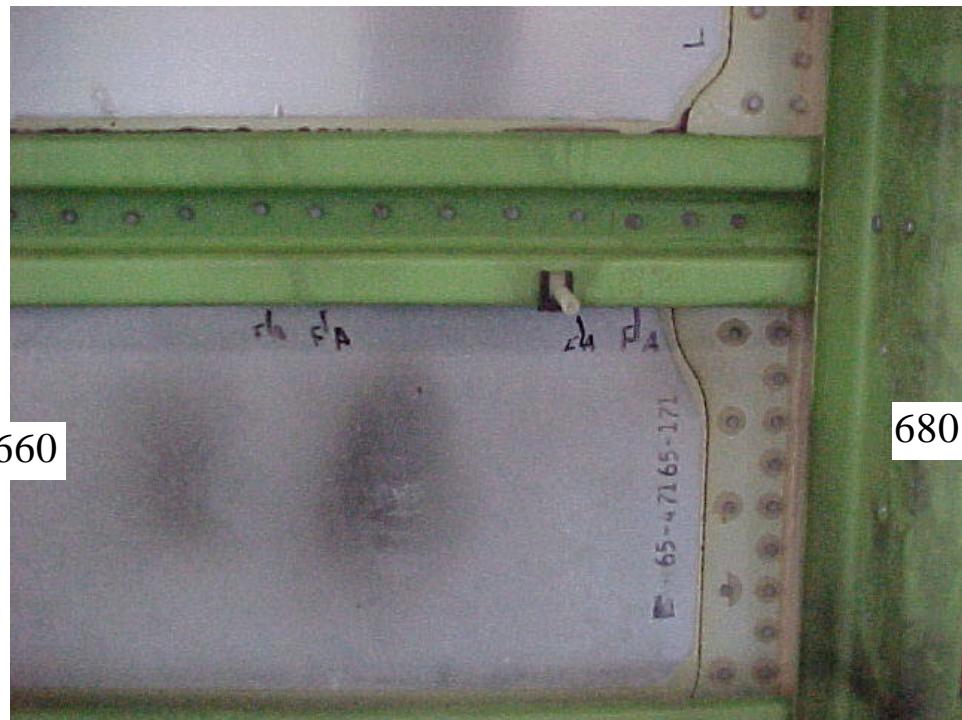


Figure C-11. Photograph of indication locations found during DVI and MFEC inspections. Stringer 4R, BS 660 to BS 680.

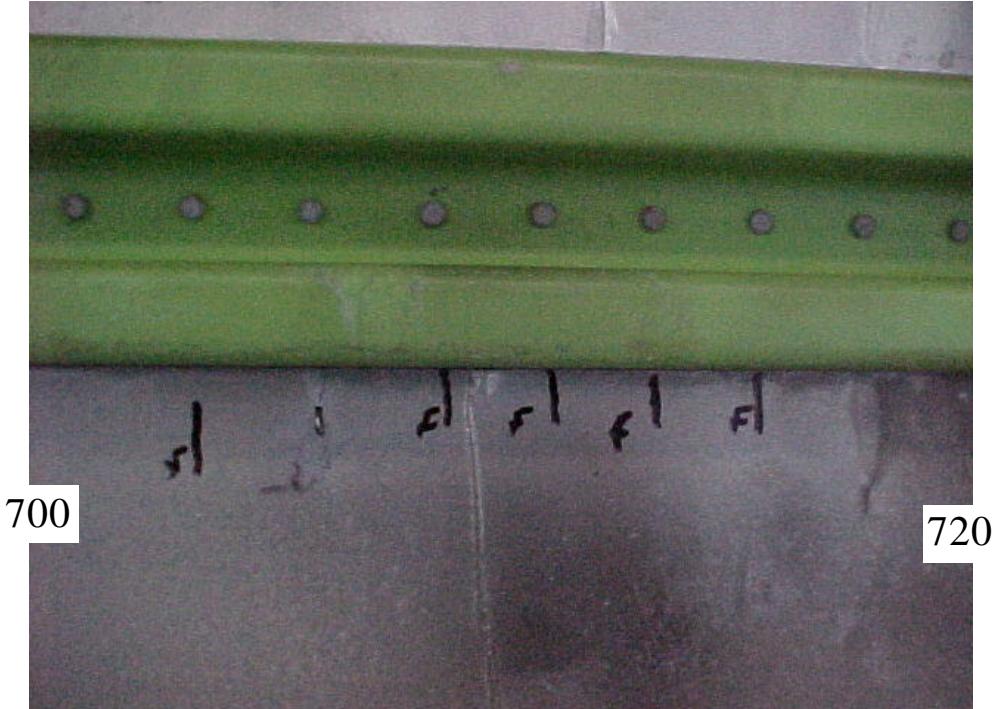


Figure C-12. Photograph of indication locations found during DVI and MFEC inspections. Stringer 4R, BS 700 to BS 720.

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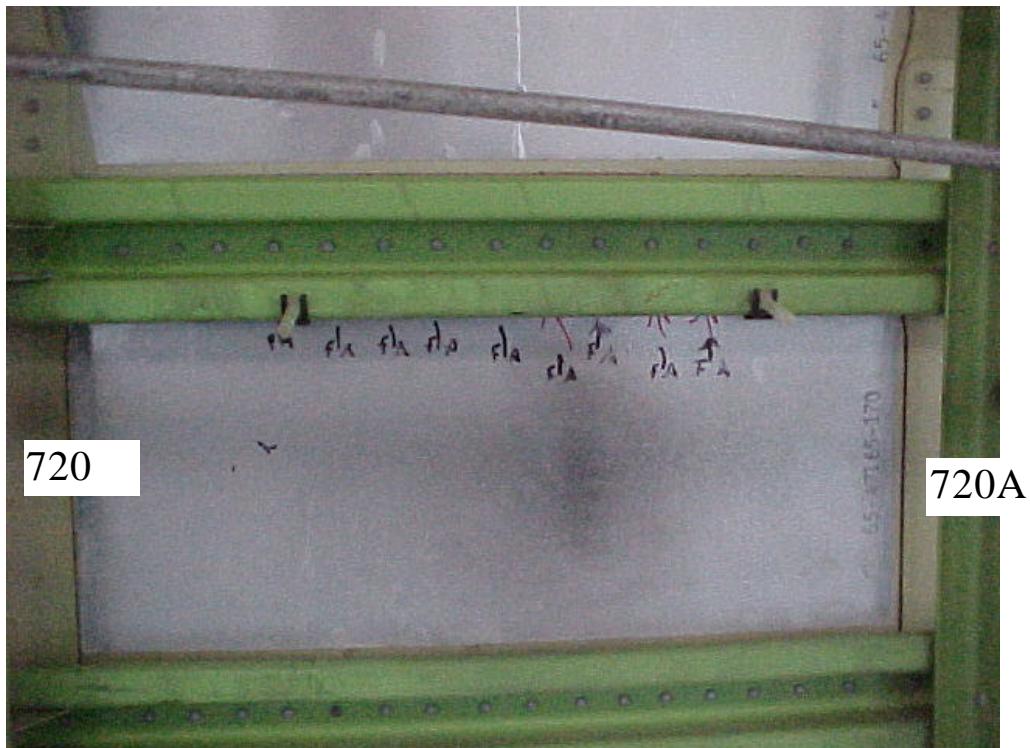


Figure C-13. Photograph of indication locations found during DVI and MFEC inspections. Stringer 4R, BS 720 to BS 720A.



Figure C-14. Photograph of indication locations found during DVI and MFEC inspections. Stringer 4R, BS 720A to BS 720B.

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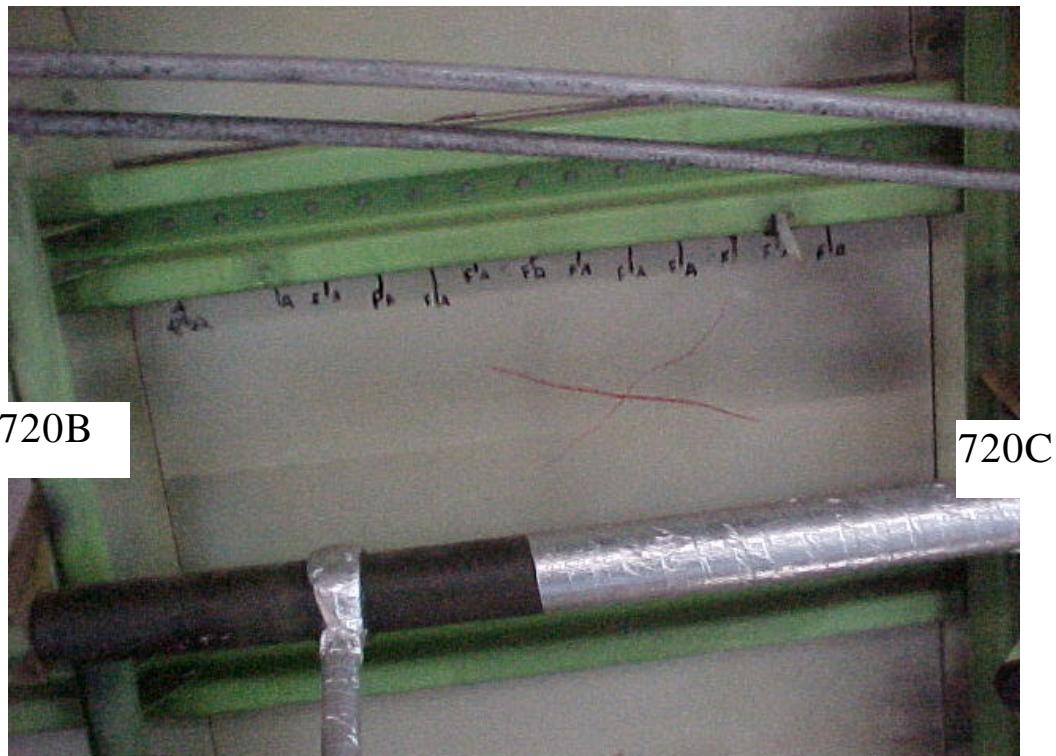


Figure C-15. Photograph of indication locations found during DVI and MFEC inspections. Stringer 4R, BS 720B to BS 720C.

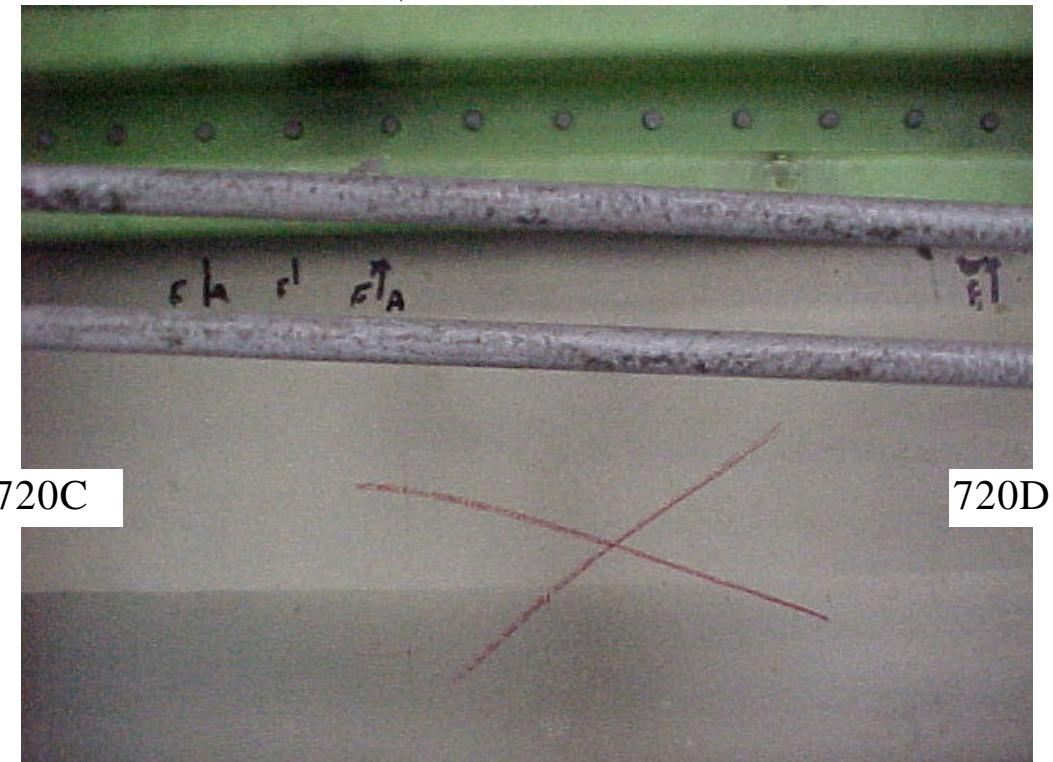


Figure C-16. Photograph of indication locations found during DVI and MFEC inspections. Stringer 4R, BS 720C to BS 720D.

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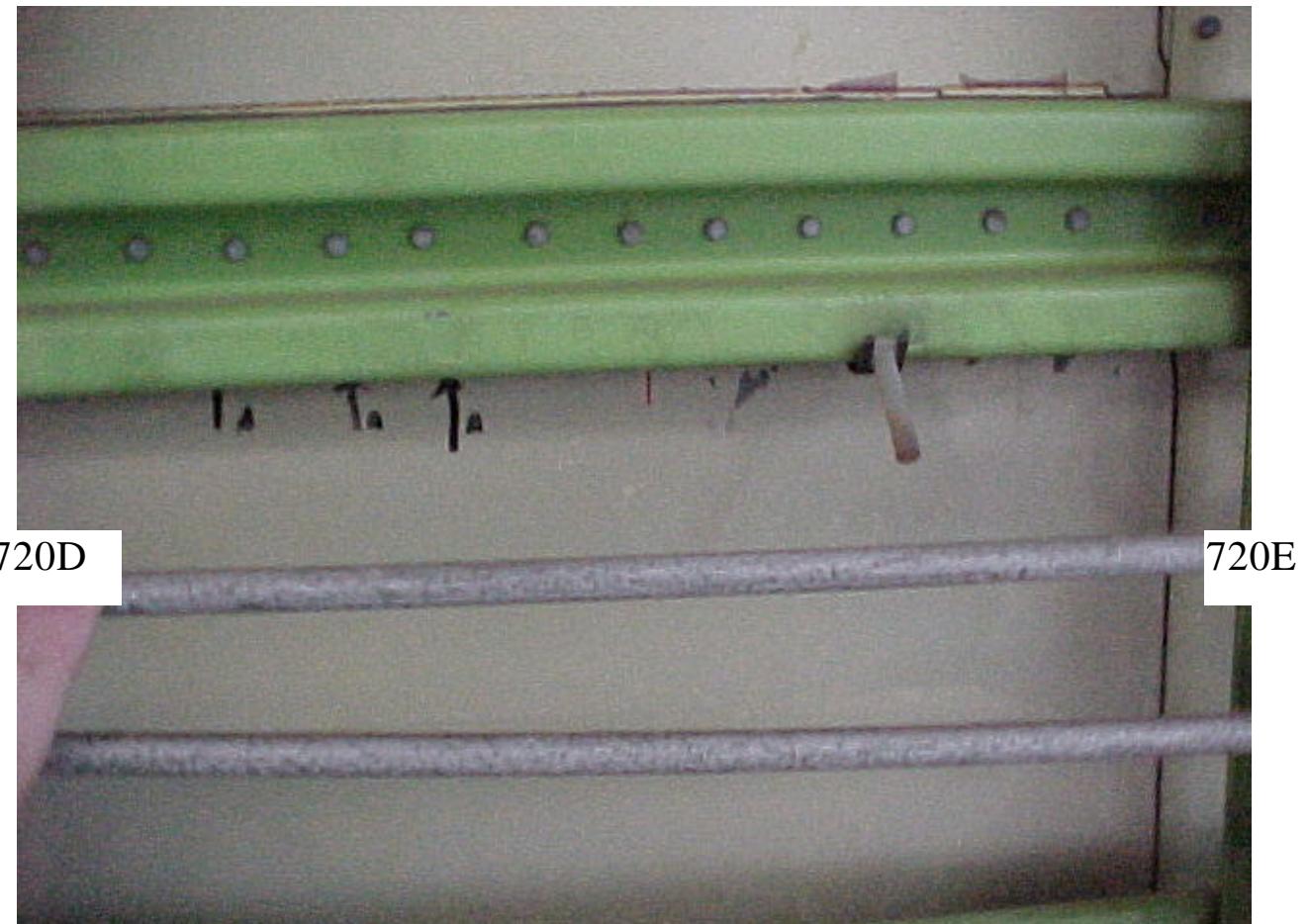


Figure C-17. Photograph of indication locations found during DVI and MFEC inspections. Stringer 4R, BS 720D to BS 720E.

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## APPENDIX D

SCREEN REPRESENTATIONS OF THE ULTRASONIC INSPECTION FOR TEAR STRAP  
DEBONDING, BOEING 727 NDT MANUAL, PART 4, 53-30-27, FIGURE 1LIST OF FIGURES

FIGURE D-1 Inspector conducting the ultrasonic tear strap inspection.....	D-2
FIGURE D-2 Inspector conducting the ultrasonic tear strap inspection.....	D-2
FIGURE D-3 Screen representation of the indication found in the tear strap at FS 328 and stringer 10R .....	D-3
FIGURE D-4 Screen representation of the indication found in the tear strap at FS 344 and stringer 10R .....	D-3
FIGURE D-5 Screen representation of the indication found in the tear strap at FS 440 and stringer 10R .....	D-4
FIGURE D-6 Screen representation of the indication found in the tear strap at FS 500 and stringer 10R .....	D-4
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Figure D-1. Inspector conducting the ultrasonic tear strap inspection.



Figure D-2. Inspector conducting the ultrasonic tear strap inspection.

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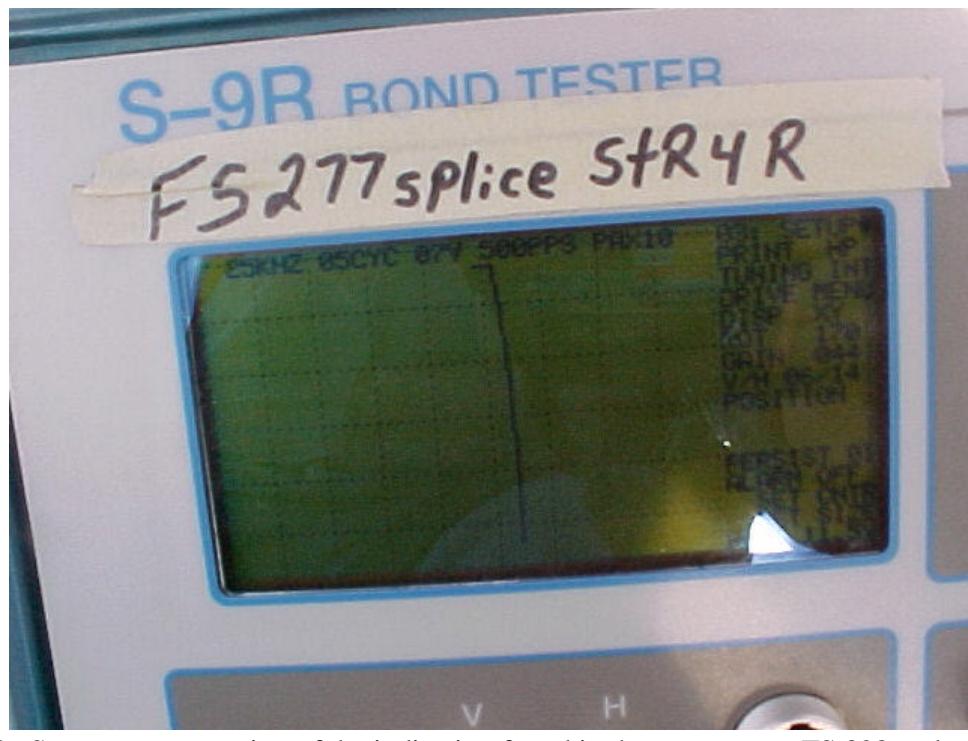


Figure D-3. Screen representation of the indication found in the tear strap at FS 328 and stringer 10R.

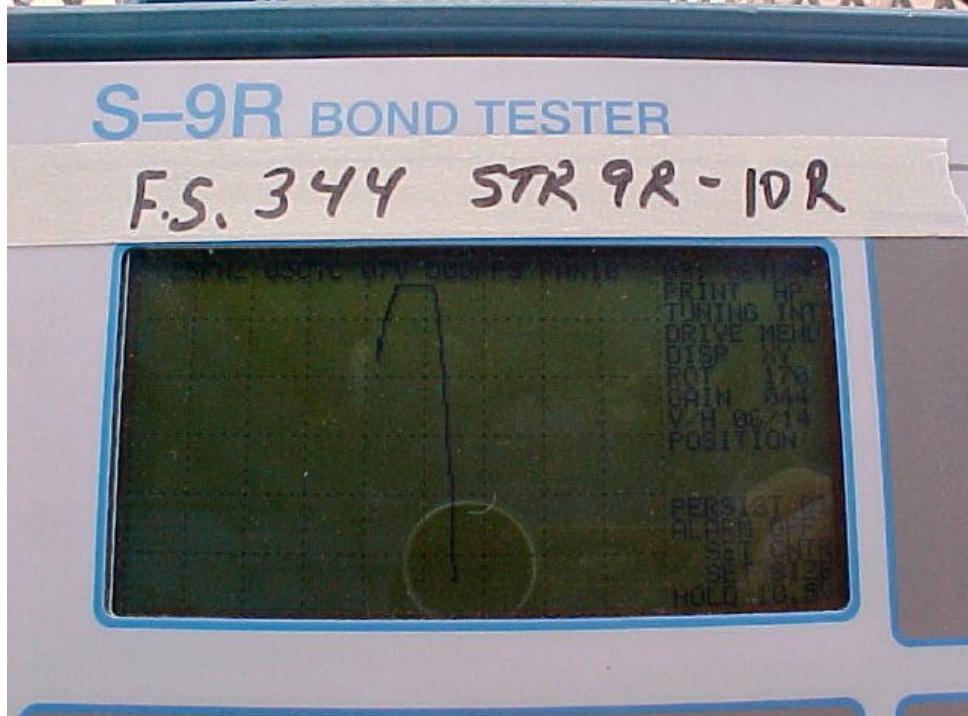


Figure D-4. Screen representation of the indication found in the tear strap at FS 344 and stringer 10R.

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SHEET	D-4	NO.	4-086382-20
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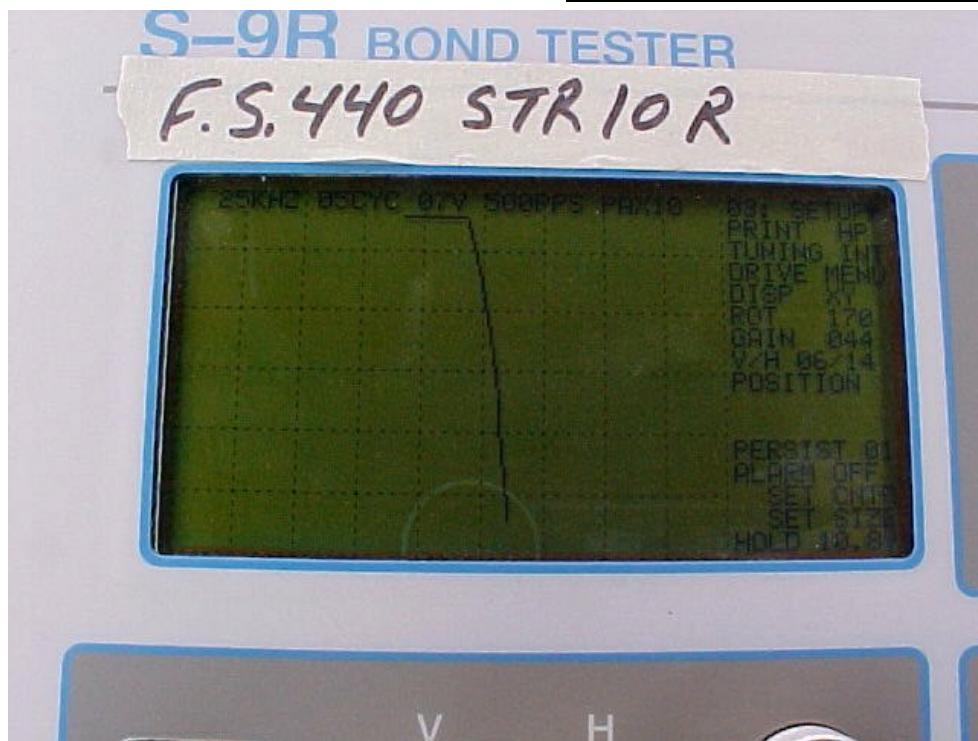


Figure D-5. Screen representation of the indication found in the tear strap at FS 440 and stringer 10R.

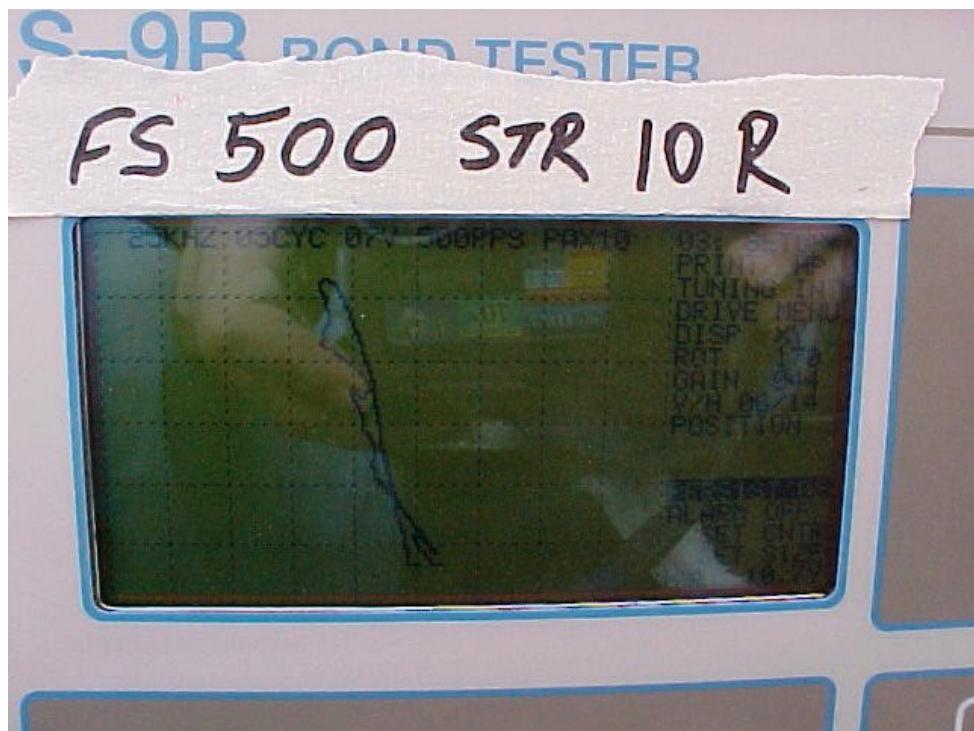


Figure D-6. Screen representation of the indication found in the tear strap at FS 500 and stringer 10R.

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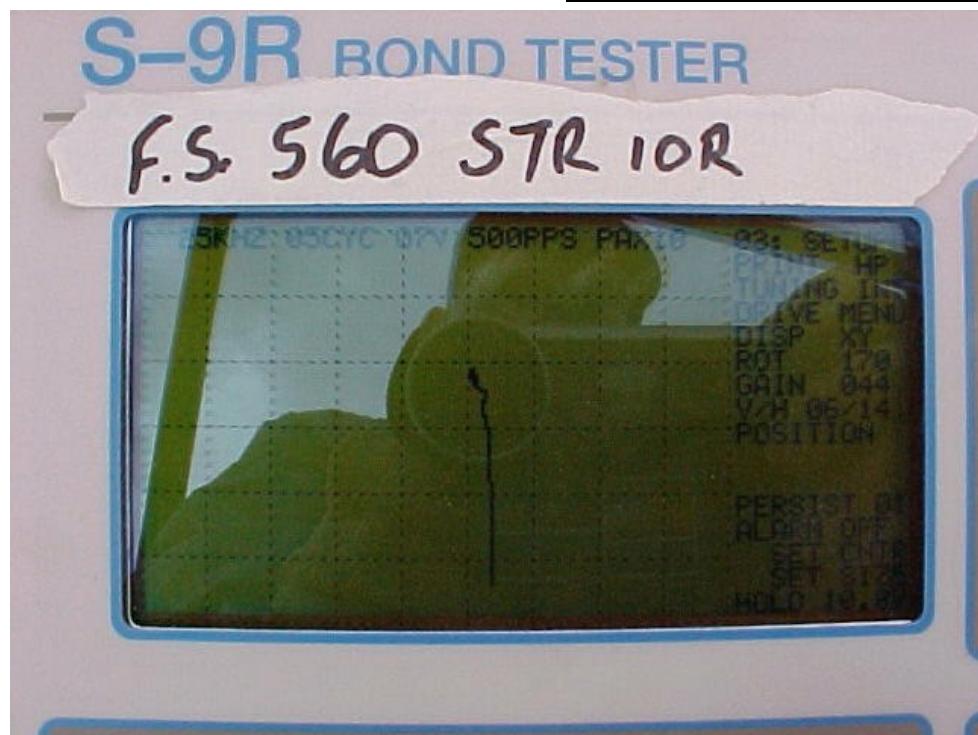


Figure D-7. Screen representation of the indication found in the tear strap at FS 500 and stringer 10R.

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## APPENDIX E

PHOTOGRAPHS OF STRINGER CLIPS WITH INDICATIONS NOTED DURING THE  
DETAILED VISUAL INSPECTIONLIST OF FIGURES

FIGURE E-1 Photograph of stringer clip at FS 600, stringer 4R. Detailed visual inspection discovered an indication .....	E-2
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FIGURE E-4 Photograph of stringer clip at FS 680, stringer 2R. Detailed visual inspection discovered an indication .....	E-3
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FIGURE E-7 Photograph of stringer clip at FS 720A, stringer 3R. Detailed visual inspection discovered an indication .....	E-5
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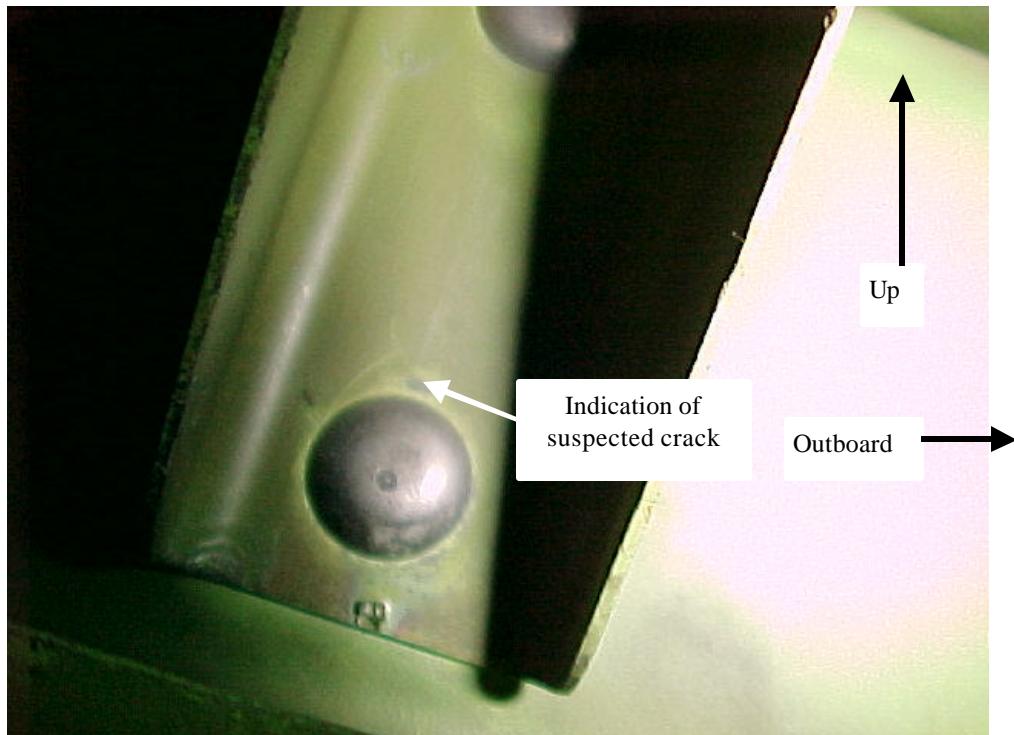


Figure E-1. Photograph of stringer clip at FS 600, stringer 4R. Detailed visual inspection discovered an indication.

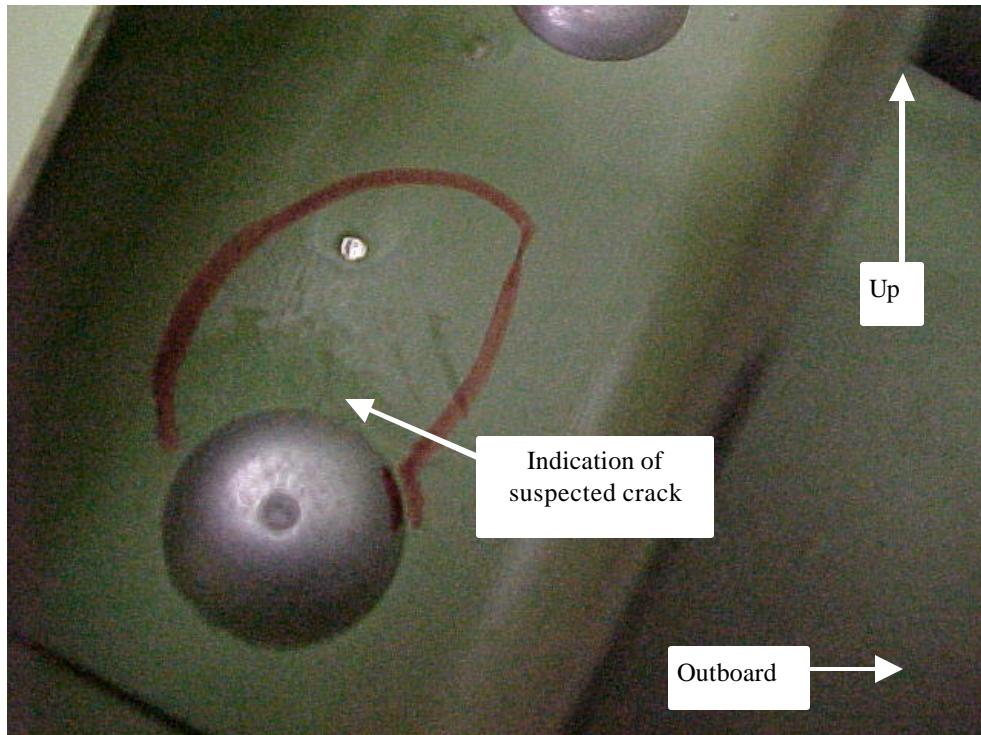


Figure E-2. Photograph of stringer clip at FS 660, stringer 4R. Detailed visual inspection discovered an indication.

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SHEET	E-3	NO.	4-086382-20
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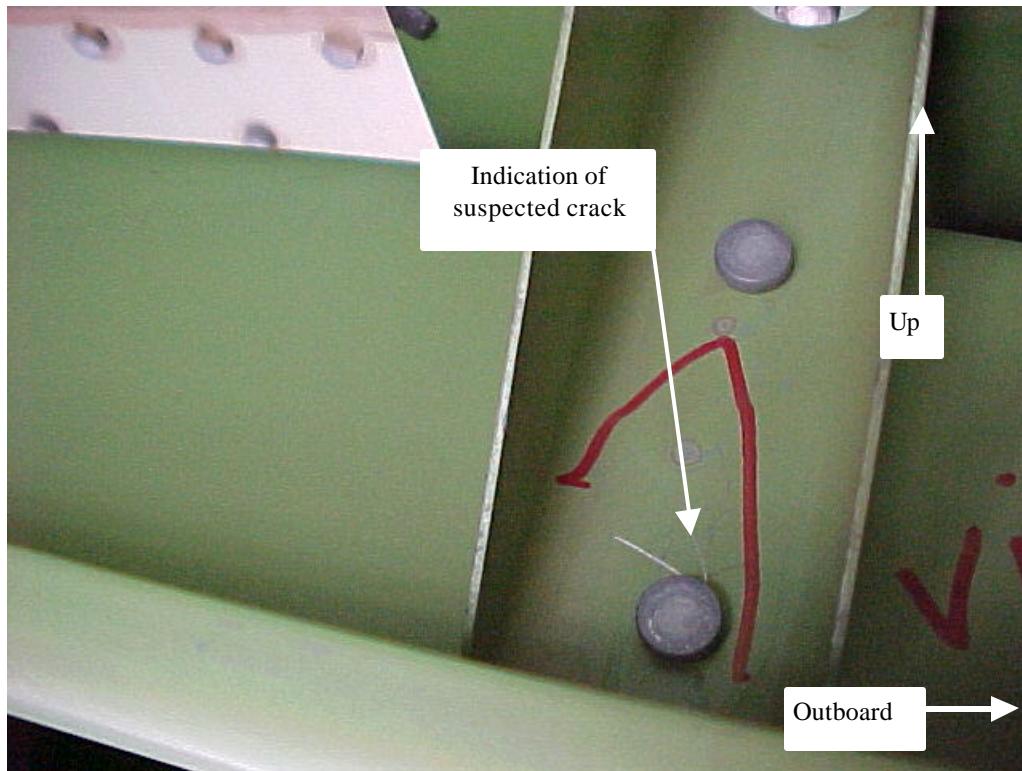


Figure E-3. Photograph of stringer clip at FS 680, stringer 3R. Detailed visual inspection discovered an indication.

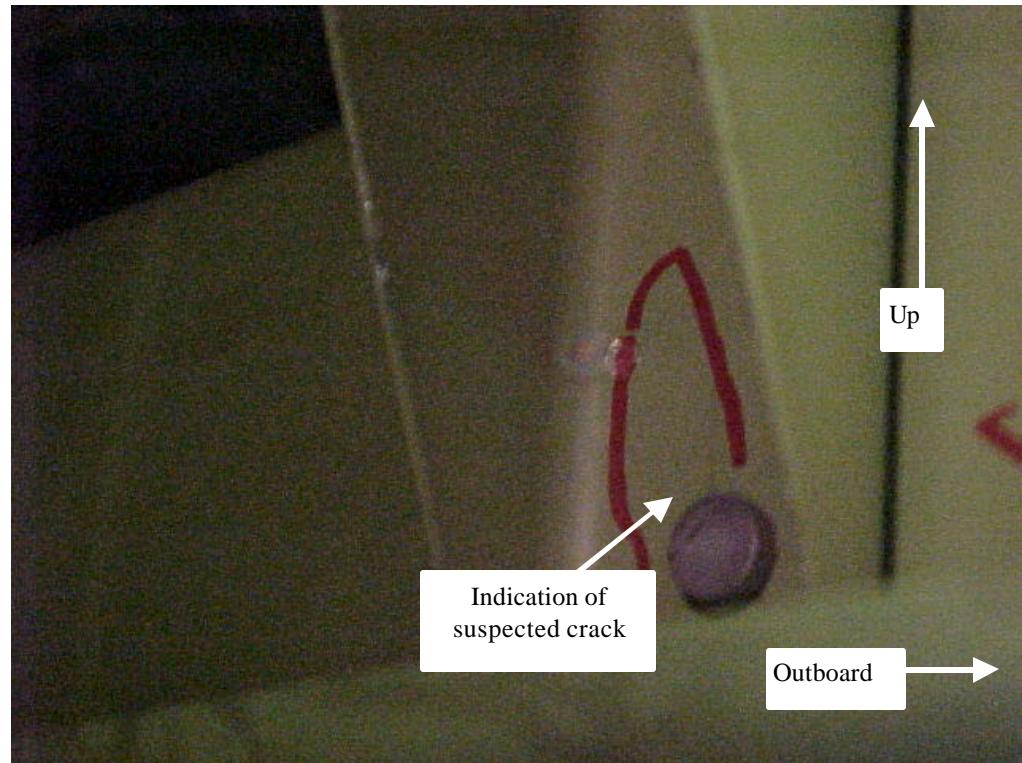


Figure E-4. Photograph of stringer clip at FS 680, stringer 2R. Detailed visual inspection discovered an indication.

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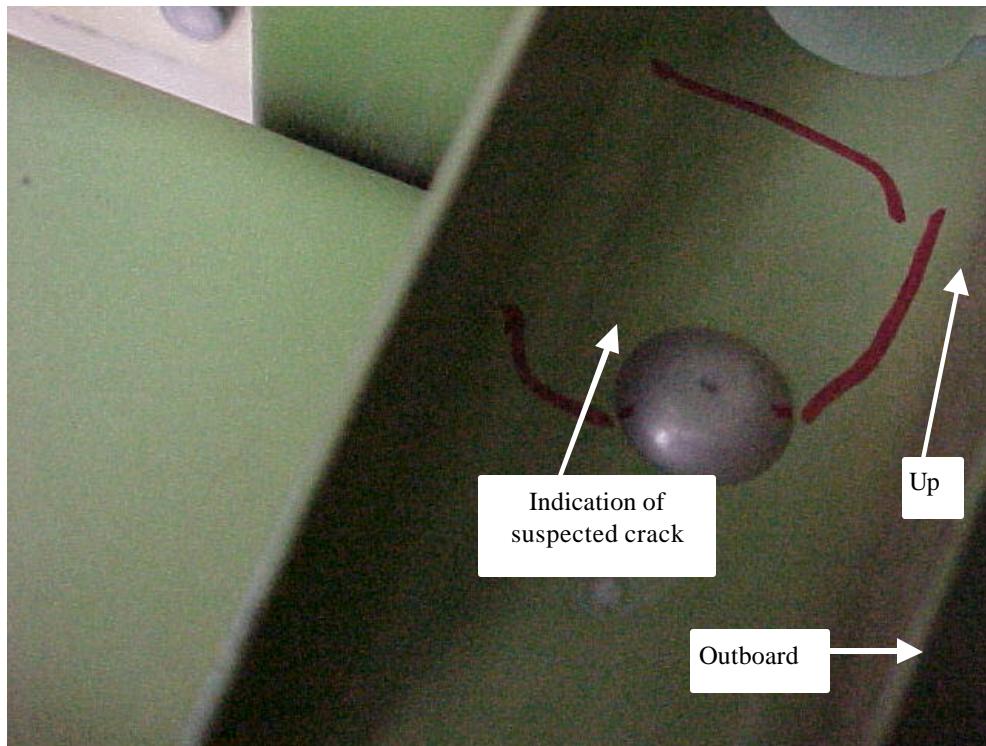


Figure E-5. Photograph of stringer clip at FS 720, stringer 4R. Detailed visual inspection discovered an indication.

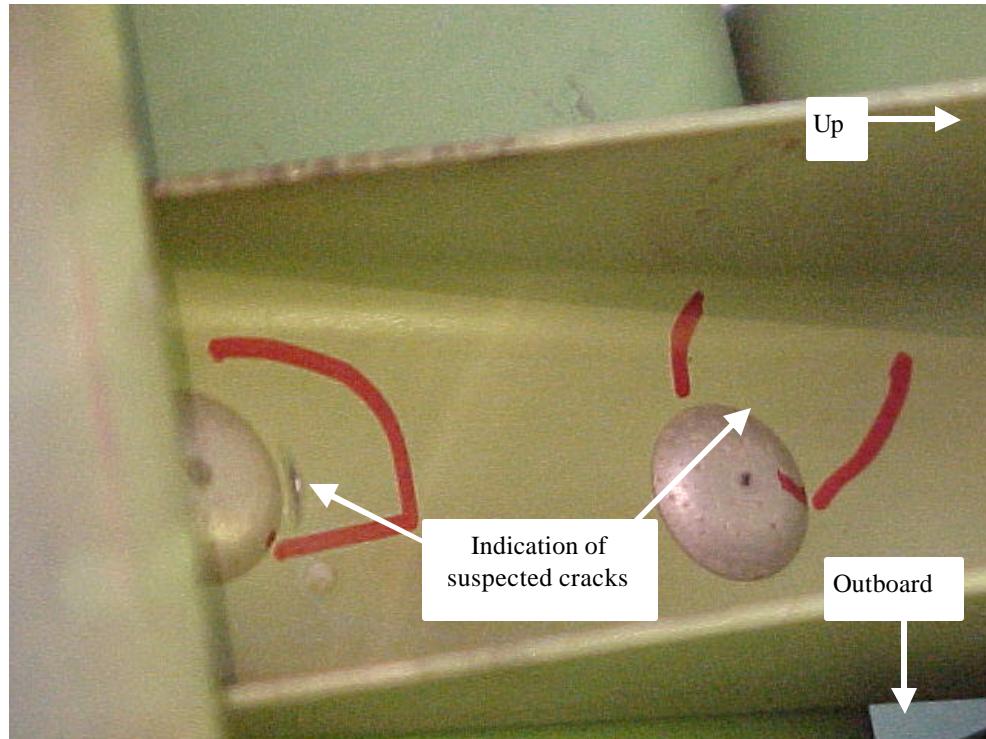


Figure E-6. Photograph of stringer clip at FS 720A, stringer 4R. Detailed visual inspection discovered an indication.

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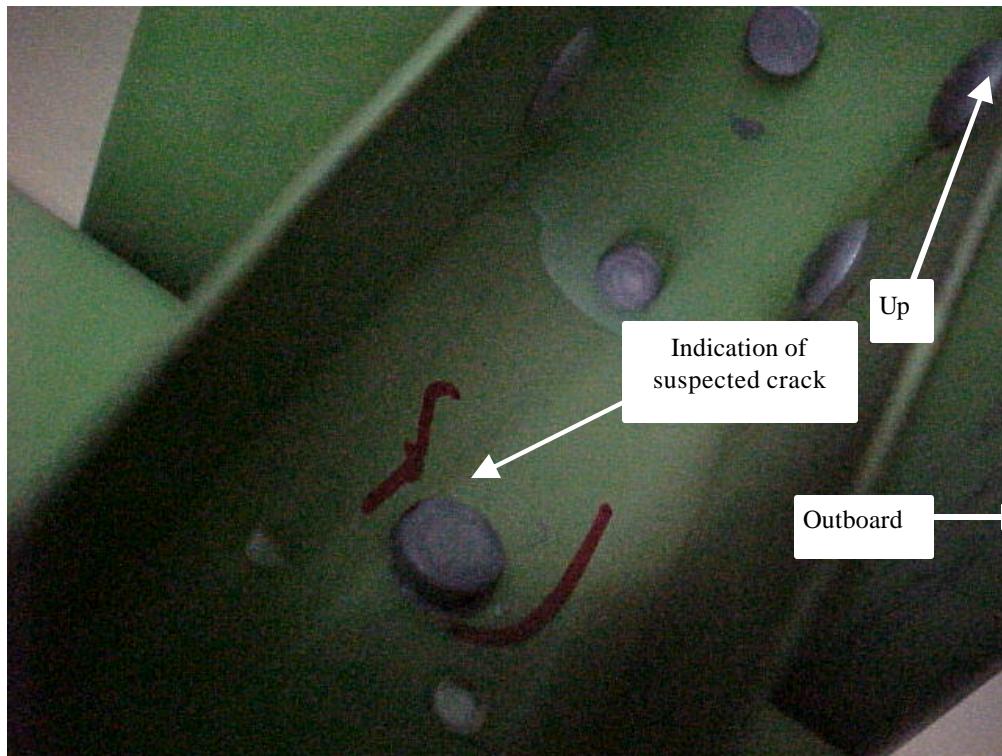


Figure E-7. Photograph of stringer clip at FS 720A, stringer 3R. Detailed visual inspection discovered an indication.

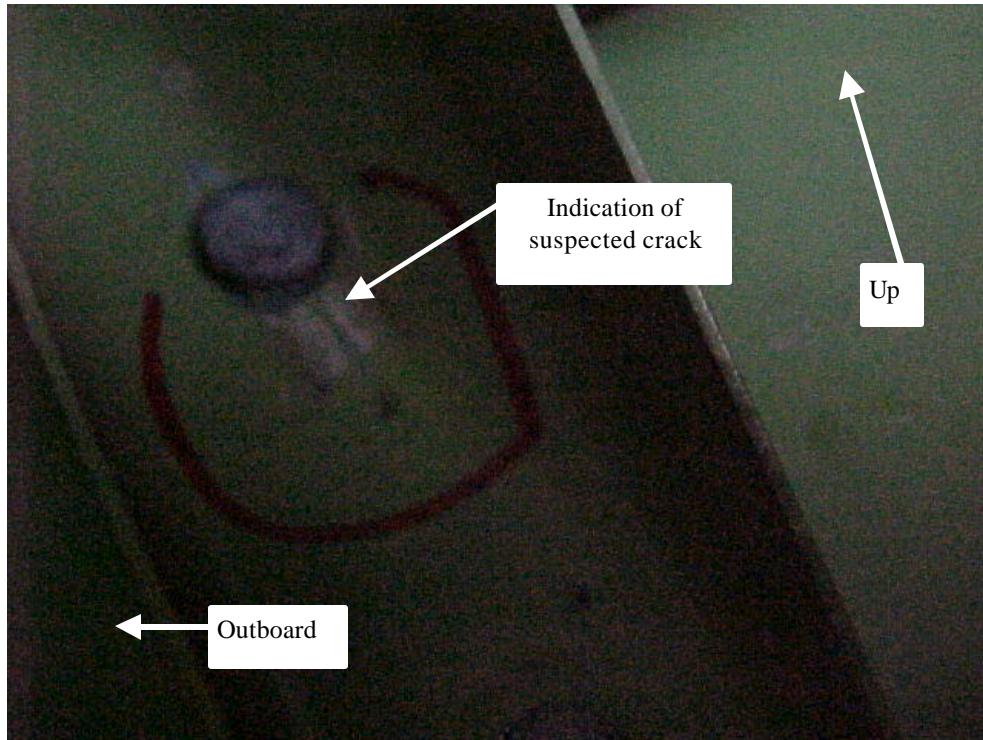


Figure E-8. Photograph of stringer clip at FS 720A, stringer 4L. Detailed visual inspection discovered an indication.

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**APPENDIX F**  
**INDICATIONS DISCOVERED DURING DETAILED VISUAL INSPECTION OF OVERWING  
EMERGENCY EXIT DOORS AND SURROUNDING STRUCTURE**

**LIST OF FIGURES**

- FIGURE F-1 Photograph documenting a previous repair at stringer 16L and FS 804.5 (between the two overwing emergency exit doors).....F-2
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- FIGURE F-3 Photograph documenting an indication on the reverse side of frame flange at FS 848.95 (aft side of aft door). .....F-4
- FIGURE F-4 Photograph documenting an indication at stinger tab near stringer 16R and FS 848.95 (aft side of aft door). .....F-5
- FIGURE F-5 Photograph documenting an indication on the reverse side of frame flange at FS 848.95 (aft side of aft door). .....F-5
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Figure F-1. Photograph documenting a previous repair at stringer 16L and FS 804.5 (between the two overwing emergency exit doors).

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SHEET	F-3	NO.	<b>4-086382-20</b>
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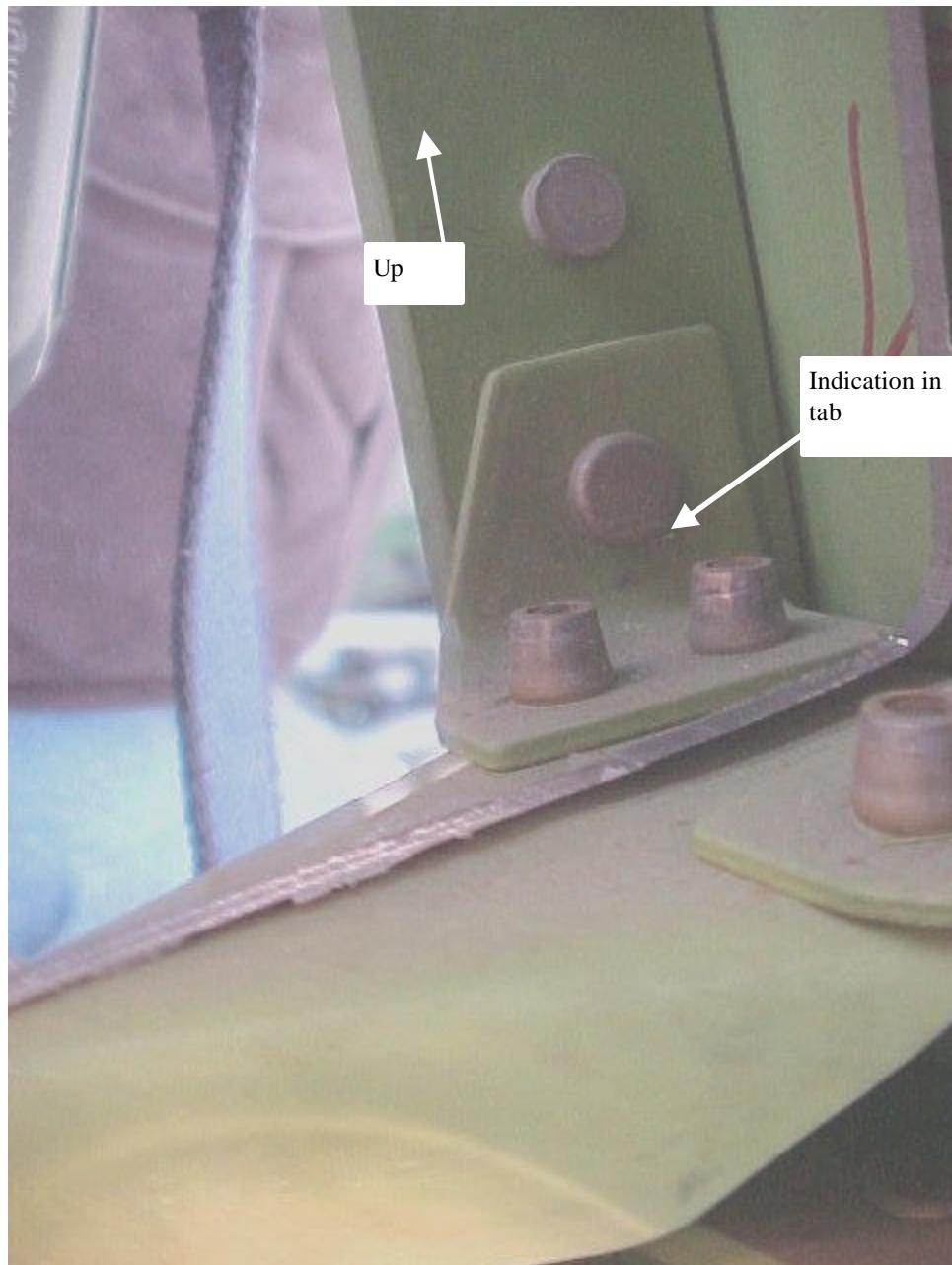


Figure F-2. Photograph documenting an indication in the tab on reverse side of frame flange at FS 783.95 (aft side of fwd door).

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SHEET	F-4	NO.	4-086382-20
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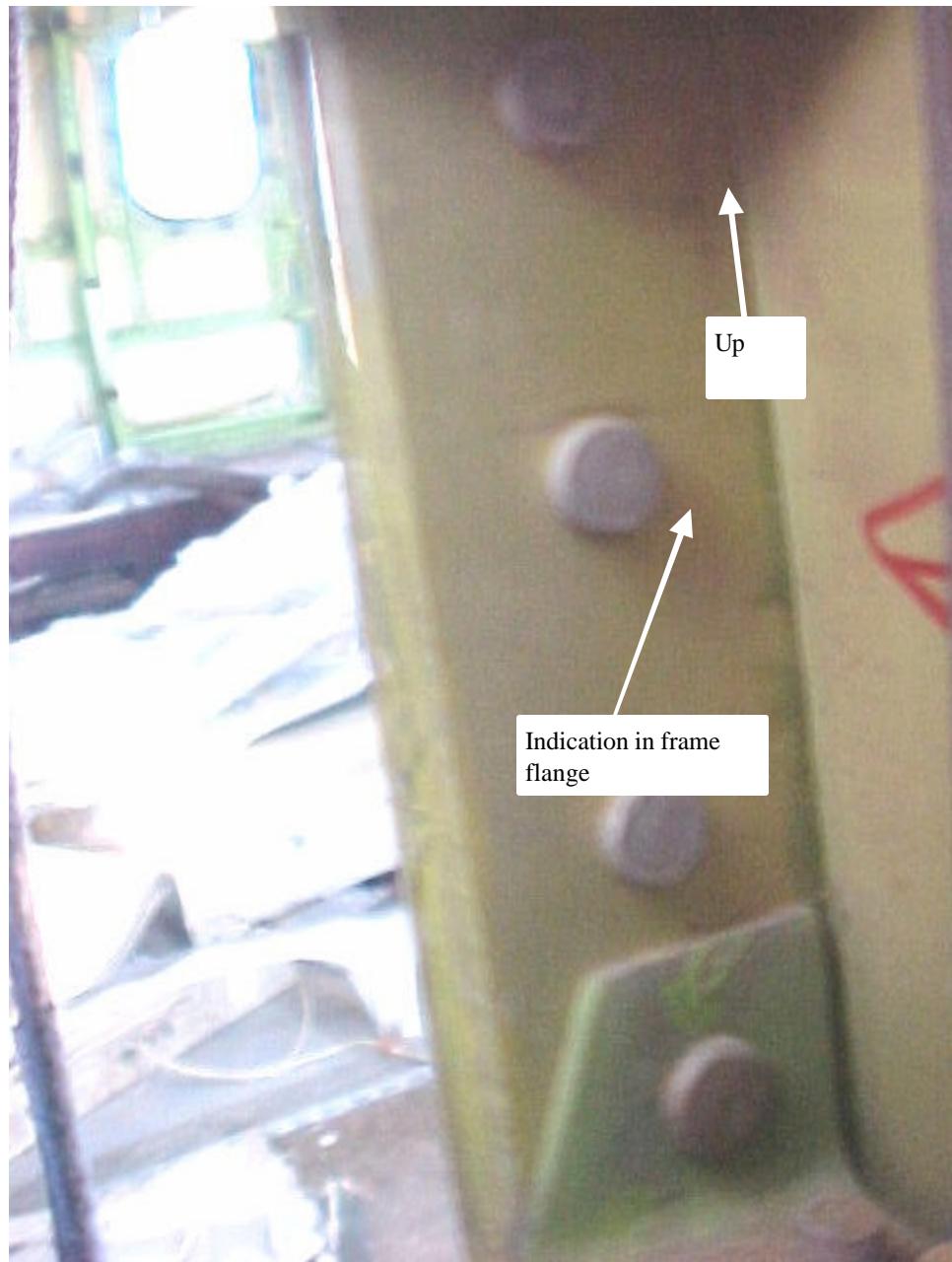


Figure F-3. Photograph documenting an indication on the reverse side of frame flange at FS 848.95 (aft side of aft door).

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SHEET	F-5	NO.	4-086382-20
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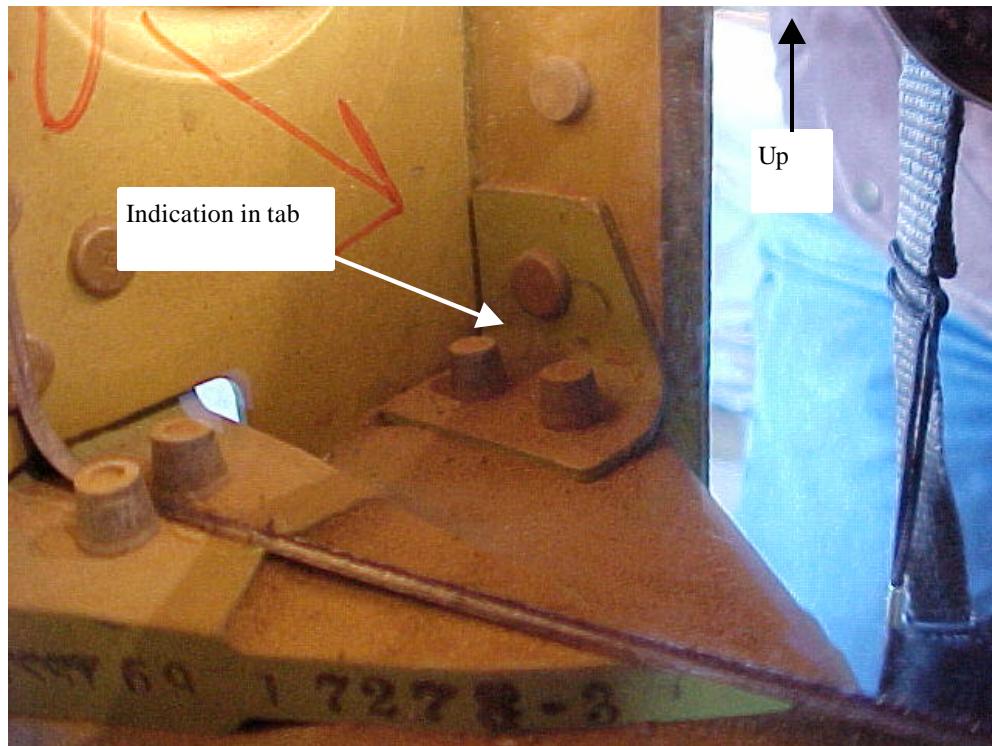


Figure F-4. Photograph documenting an indication at stinger tab near stringer 16R and FS 848.95 (aft side of aft door).

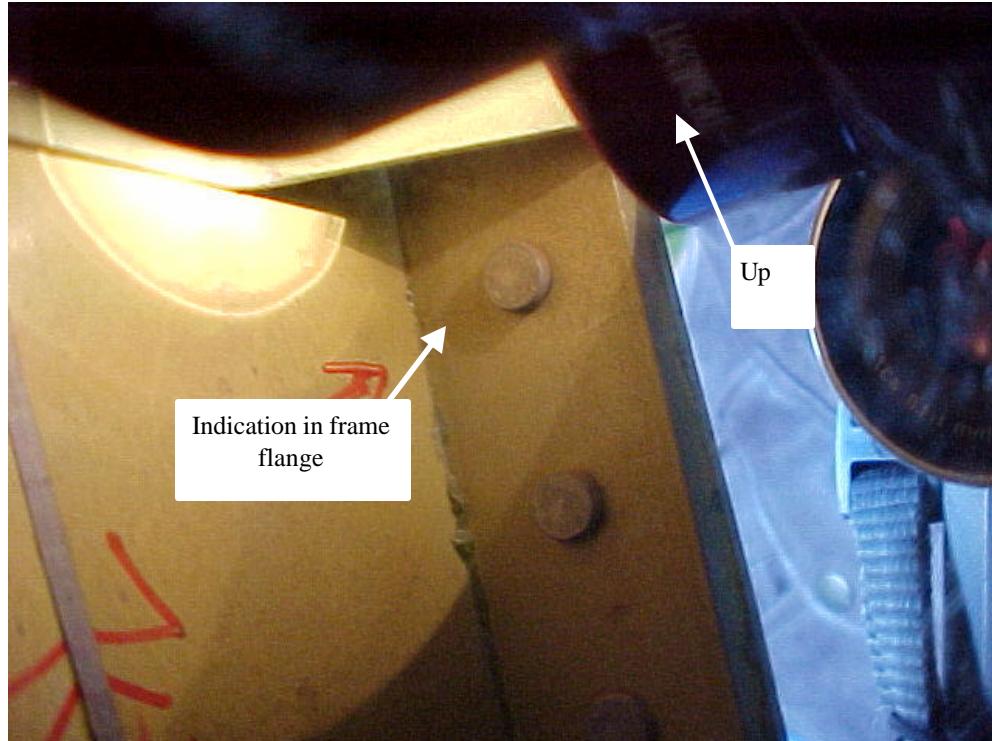


Figure F-5. Photograph documenting an indication on the reverse side of frame flange at FS 848.95 (aft side of aft door).

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SHEET	F-6	NO.	4-086382-20
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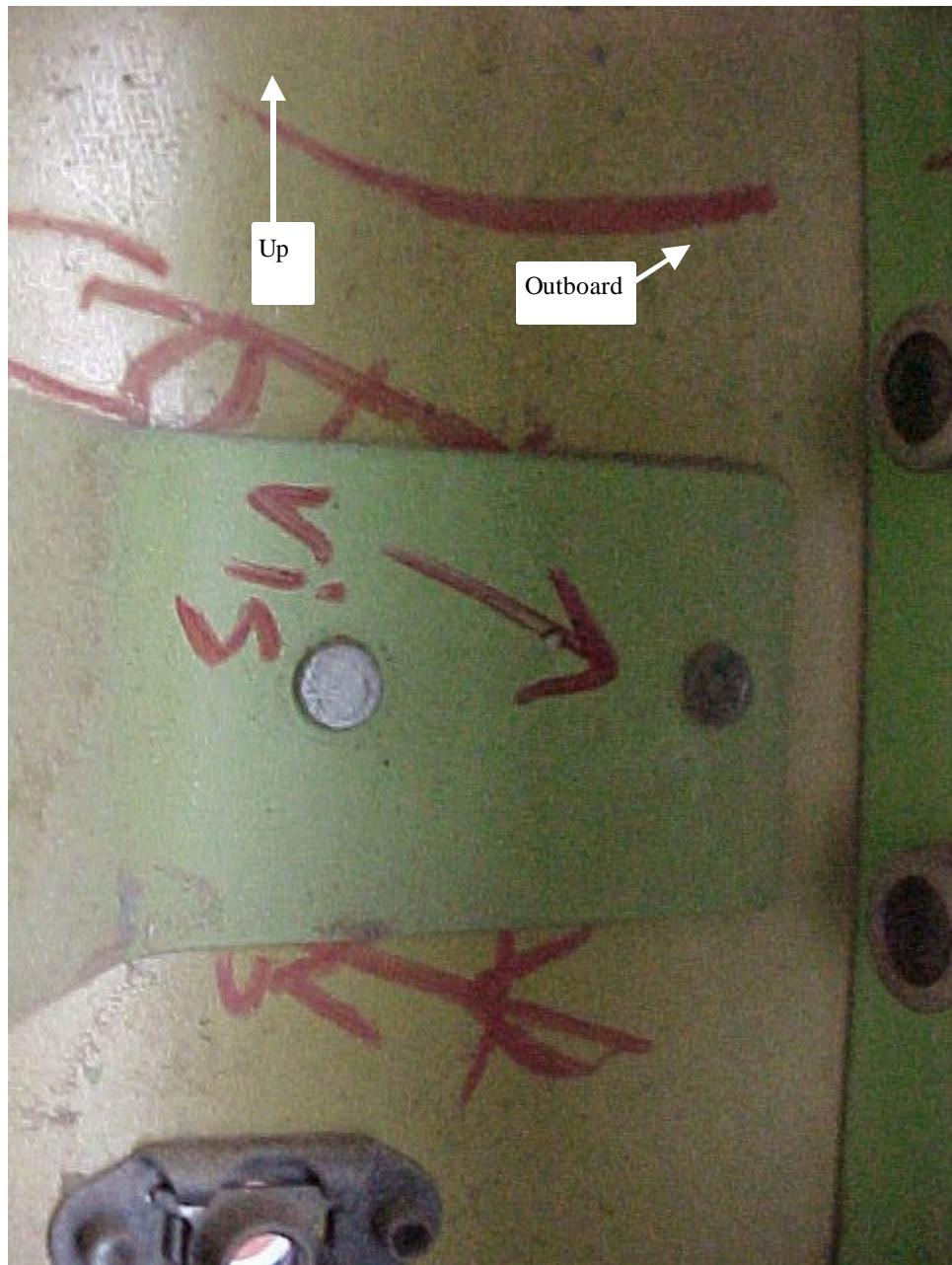


Figure F-6. Photograph documenting an indication in the tab at 848.95 (aft side of aft door).

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SHEET	F-7	NO.	4-086382-20
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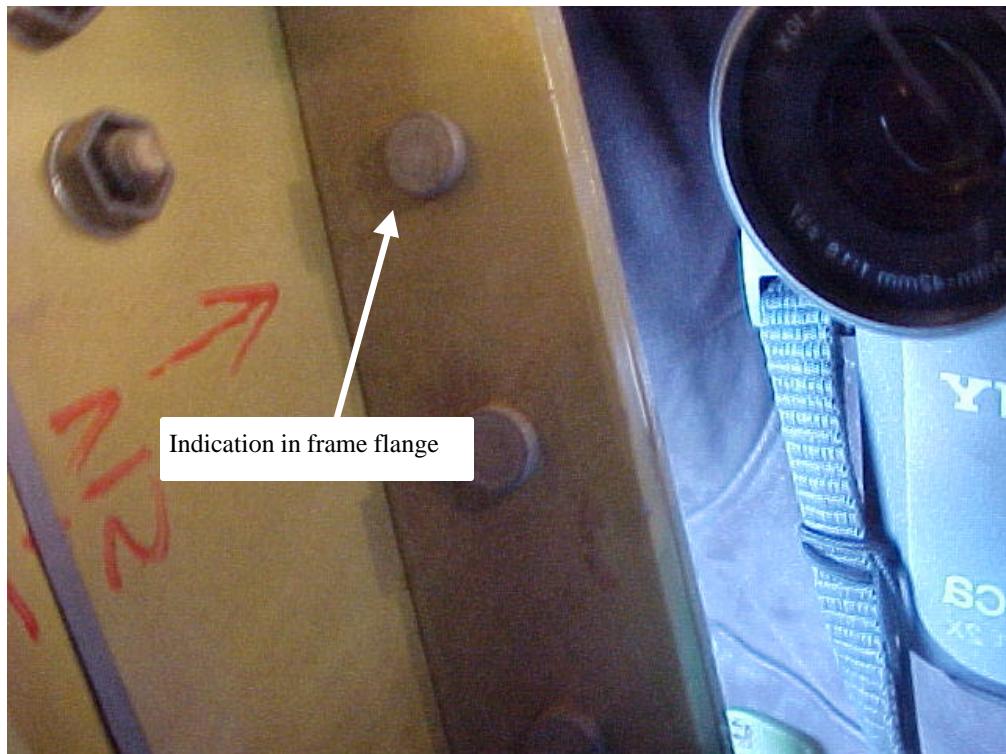


Figure F-7. Photograph documenting an indication on the reverse side of the frame flange at 848.95  
(aft side of aft door).